

THE CHEMIST AND DRUGGIST

TELEGRAPHIC
ADDRESS
CHEMICUS LONDON

REGISTERED AS A NEWSPAPER.

Subscription: **10/- PER ANNUM**, Post Free to any Part of the World.

ESTABLISHED IN

ENGLAND 1859.
AUSTRALASIA ... 1885.

[Registered for Foreign Transmission.]

BRANCH OFFICE,
AUSTRALASIA:
NORMANBY CHAMBERS,
MELBOURNE.

Vol. XXXII.

MARCH 17, 1888.

{ SUBSCRIPTION, 10s. PER ANNUM, INCLUDING
DIARY, POST FREE THE WORLD OVER.
SINGLE COPIES, 4d. EACH POST FREE.

ARRIVAL OF OUR NEW SEASON'S

GOOD LIVER OIL

From Fresh and Selected Livers, and of Exceptional Quality.

SAMPLE AND PRICE ON APPLICATION.

LN & HANBURYS, Plough Court, Lombard Street, **LONDON.**

WHOLESALE AND EXPORT DRUGGISTS.

LIVER OIL MANUFACTORIES—LONGVA and KJERSTAD, NORWAY.

"CARNABYN"

(REGISTERED)

NOURISHING MEAT AND MALT WINE.

Recommended by the Medical Faculty in all cases of weakened constitution, and particularly useful in cases of ladies, infants, and delicate children, or in ailments where a stimulating—digestive—tonic—nutrient is indicated.

Dose—A quarter to Two Ounces twice daily.

Bottles, 2s. 6d., 5s., and 7s. 6d. Samples Free to the Profession.

HOOPER & COMPANY,

CHEMISTS, ETC.

Man East, London, S.W.: also at 55 Grosvenor Street, and 26 Davies Street, W.

LABORATORY—MITCHAM, SURREY.

ALSO SUPPLIED TO H.M. THE QUEEN AND THE ÉLITE OF THE ARISTOCRACY,

HOOPER'S SPARKLING SELTZER

2/6 per dozen. Six dozen Carriage free.

LEMONADE, PURE POTASH, LEMONADE, AND AROMATIC GINGER ALE.

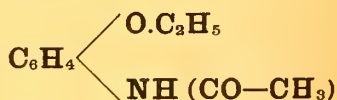
Special Terms for Quantity.

EXCHANGE COLUMN, PAGE 12.

BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS, PAGES 29-31.

THE NEW ANTIPYRETIC PHENACETINE

(Para-Acetphenetidine).



PHENACETINE has been already used with marked success in the treatment of Neuralgia, Vomiting, Pneumonia crouposa, Typhus Abdominalis, M. billi, Puerperalis, Pleuritis, Pyæmia, Typhus Recitativus, Meningitis Cerebrospinalis, Perityphlitis, Parametritis, Angina.

PHENACETINE

MAY BE HAD THROUGH ANY OF THE

WHOLESALE HOUSES

OR IN QUANTITY FROM

MAY & BAKER

(W. G. Baker. R. C. Heath. T. Tyrer. W. E. B. Blenkinsop)

MANUFACTURERS OF

FINE, PHARMACEUTICAL, AND GENERAL CHEMICALS

(See former Advertisements in THE CHEMIST AND DRUGGIST.)

MEDALS—1851, 1855, 1862, 1867, 1885.

GARDEN WHARF, CHURCH ROAD, BATTERSEA

LONDON, S.W.

OLDFIELD, PATTINSON & CO.

Sole Proprietors and Manufacturers of the

"Silver Churn" Butter Colouring,

A purely Vegetable preparation for giving to Butter, at all seasons, a rich cowslip tint, not obtainable by other means. It is the best and cheapest preparation in the market, and does not crust or deposit like the Danish and American makes, and has the further advantage of being a **Home Product**. Druggists in the grazing districts will find this a very saleable line. It is sold in bottles attractively got up at

6d.	1s.	2s.	5s. size
4s.	8s.	16s.	38s. per dozen.

usual 10 per cent. discount. Buyers of £5 worth gross value, which may be assorted to suit their requirements, are put on full wholesale terms.

For large Dairies and Druggists, who prefer to bottle it under their own name, we supply in bulk at

1 per lb. in Wht. Qts., 100s. cwt. in 2-gallon bottles.

Also in 12-gallon and 3 and 5 cwt. casks at special prices. Title and Trade Marks ("Silver Churn" and "Buttercup") are registered.

Wholesale Druggists.

SPECIALTIES—Cucumber Cream, 1/2 per lb., 1/ in Wr. Qts.

Composition Essence, 1/2 per lb., 1/ in Wr. Qts.

Botanic Extract, 1/2 per lb., 1/ in 2-gal. bots.

Perfian Bouquet, 8/ per lb., 7/6 in Wr. Qts., a choice and very lasting perfume.

Perfian Bouquet Lozenges, 2/ per lb., 1/9 in 14-lb. lots.

Concentrated Infusions and Decoctions.

Concentrated Liquors for Syrup Making.

Palatable Essences and Extracts for Mineral

Waters.

Palatable Cakes, Flavours, and Essences for Confectioners.

Large buyers

Expressed Juices and Chemical Syrups.

Fluid and Solid Extracts.

Essences for Rectifiers, Cordial Makers, Brewers, &c.

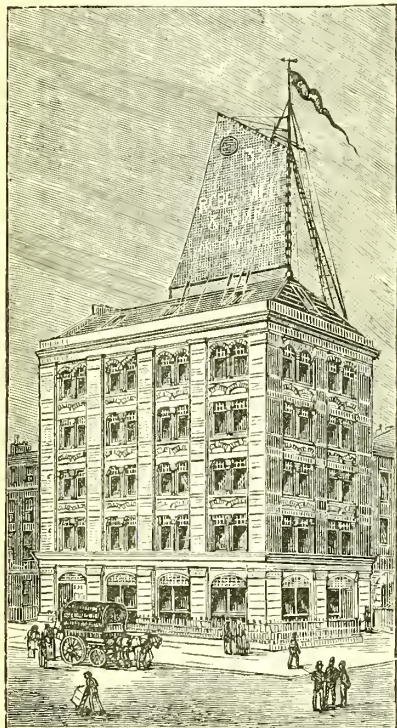
Essential Oils and Colours for Soap Makers.

are requested to write for special quotations, at the same time stating quantity.

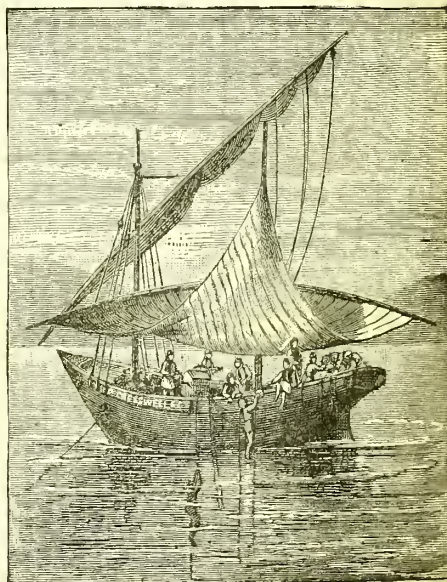
Price list may be had on application with business card.

Manchester.

SPONGES.



RECEIVED
THE
HIGHEST
AWARD
AT THE
ADELAIDE
EXHIBITION,
1887.



TRADE MARK.

BRANCHES:

GLASGOW.
DUBLIN.
LIVERPOOL.
BRUSSELS.
SYRINA.
HAVANA.
NASSAU, N.P.

R. CRESSWELL & CO., LIM

32 RED LION SQUARE, LONDON, E.C.

MR. R. CRESSWELL, Managing Director.

This Business was established in **1850** by Mr. R. Cresswell, the senior partner of the well known firm of **R. CRESSWELL & CO.**, now carried on as a Limited Company, of which Mr. R. Cresswell is the Managing Director.

R. CRESSWELL & CO., LIM., can supply Sponges of every quality **YIELDING MUCH BETTER VALUE** than those offered by other firms.

We have had **OUR OWN STAFF** on the Mediterranean and Bahama Fisheries for the last **30 YEARS** and fear **NO COMPETITION**.

SPECIAL LINES NOW ON SHOW SUITABLE FOR THE APPROACHING SEASON.

ILLUSTRATED PRICE LIST POSTED ON APPLICATION.

PLEASE TO NOTE STYLE AND ADDRESS:

R. CRESSWELL & CO., LIMITED

32 RED LION SQUARE, LONDON, W.C. ESTABLISHED 1850.

STEVENSON & HOWELL

"EXTRA QUALITY"

Soluble Essence of Jamaica Ginger

CONCENTRATED IN VACUO.

GUARANTEED PURE AND FREE FROM CAPSICUM.

PLEASE NOTE OPINION OF

"THE LANCET"

July 3rd, 1886. Page 17.

"SOLUBLE ESSENCE OF JAMAICA GINGER,

"GUARANTEED FREE FROM CAPSICUMS.

(STEVENSON & HOWELL, SOUTHWARK STREET.)

"According to our analysis and examination this is a perfect ginger essence. We have searched most carefully for the active principle of capsicum, and have not found the slightest trace. No less than 98·8 per cent. of the essence is volatilised by heat, including, of course, the fragrant essential oil, and of the residue only one-half is soluble in ether, so that the fixed resin in the essence only amounts to 0·6 per cent. As might be expected from its composition, the flavour of this essence is more delicate than that of the finest root."

OIL OF LEMON, "SELECTED."

NEW CROP, 1888. GUARANTEED ABSOLUTELY PURE.

AMERICAN FOAM SYRUP,

PRODUCING A CLOSE, WHITE, CREAMY, SOLID HEAD, free from large bubbles.

STEVENSON & HOWELL, STANDARD WORKS, 95a SOUTHWARK ST., LONDON, S.E.

CAUTION.

TO CHEMISTS AND DRUGGISTS, AND OTHERS.

Many of our customers, especially those abroad, having complained that when ARTICLES OF OUR MANUFACTURE have been ordered through Merchants and Wholesale Houses, other and inferior goods have been substituted, we beg to inform the Trade that to insure the supply of OUR MANUFACTURES in future all our BEST QUALITY GOODS will bear Trade Mark as annexed.

S. MAW, SON & THOMPSON.

ALDERSGATE STREET, LONDON.

S. MAW, SON & THOMPSON'S

TRADE MARK.



TO IMITATE WHICH IS F. O. N. Y.

The following SPECIALTIES are well worth the attention of the Trade:—

- | | |
|--|---|
| MAW'S ADHESIVE PLASTER | MAW'S CATHETERS, Silk Web, Unbreakable |
| MAW'S AMBROSIAL SHAVING CREAM | Eyes, and Solid Ends, Patent |
| MAW'S ANTISEPTIC INHALERS | MAW'S CHERRY TOOTH PASTE |
| MAW'S ARECA TOOTH PASTE | MAW'S CHEST PROTECTORS |
| MAW'S AROMATIC TOOTH PASTE | MAW'S CLINICAL THERMOMETERS |
| MAW'S ATMOSPHERIC ODORATORS for Perfumery | MAW'S COCAINE SPRAYS |
| MAW'S AURILAVES | MAW'S COMPRESSED CAMPHOR |
| MAW'S BACK RESTS AND BED TABLES for Invalids | MAW'S CORK PRESSERS |
| MAW'S BANDOLINE | MAW'S CORN RUBBERS |
| MAW'S BATH THERMOMETERS, Latest Improvements | MAW'S CONSTANT & INDUCED BATTERIES |
| MAW'S BLEEDING BASINS | MAW'S COSMETIQUE |
| MAW'S BOUGIES & CATHETERS, Elastic Gum | MAW'S COTTON WOOL |
| MAW'S BOUGIES & CATHETERS, Silk Web | MAW'S COURT PLASTER |
| MAW'S BREAST RELIEVERS | MAW'S COVERED POTS FOR DISPENSING, &c. |
| MAW'S BRILLIANTINE | MAW'S DISPENSING BOTTLES |
| MAW'S BRONCHITIS KETTLES | MAW'S DOMESTIC MUCILAGE |
| MAW'S BROWN WINDSOR SOAP | MAW'S EARTHENWARE INHALERS |
| MAW'S BRUSH AND SPONGE POWDER | MAW'S ELASTIC STOCKINGS, KNEE CAPS, &c. |
| MAW'S CACHOUS AROMATISES | MAW'S ELECTRO-MAGNETIC MACHINES |
| MAW'S CAPILAVES | MAW'S ENEMA APPARATUS |
| MAW'S CAPSULES | MAW'S ENEMA APPARATUS (HIGGINSON'S) |
| MAW'S CATHETERS, Silk Web, Unbreakable Eyes | MAW'S ENEMA APPARATUS (HIGGINSON'S), with Disconnecting Tubes |
| | MAW'S FEEDING BOTTLES |
| | MAW'S FLESH GLOVES, RUBBERS, &c. |

S. MAW, SON & THOMPSON'S SPECIALTIES—continued.

MAW'S FLOATS AND WICKS	MAW'S PERFUMERY
MAW'S FULLERS' EARTH	MAW'S PESSARY MOULDS
MAW'S FUMIGATING PASTILLES	MAW'S PILL BOXES
MAW'S FUMIGATING RIBBON	MAW'S PILL MACHINES
MAW'S GAS STOVES	MAW'S POMADE BOTTLES
MAW'S GERMAN FLOATS	MAW'S POMADES
MAW'S GLYCERINE JELLY	MAW'S POWDER FOLDERS
MAW'S GOLD BEATERS' SKIN	MAW'S RESPIRATORS
MAW'S GRADUATED MEASURES	MAW'S RETORT STANDS
MAW'S HAIR BRUSHES	MAW'S ROOT CUTTERS
MAW'S IMPROVED BINAURAL STETHO- SCOPES	MAW'S ROSE LEAF POWDER
MAW'S IMPROVED DOUCHES	MAW'S SAUCE PIQUANTE
MAW'S IMPROVED HEARING TRUMPETS, Nickel Plated	MAW'S SCALES AND WEIGHTS
MAW'S IMPROVED INDIARUBBER URINALS	MAW'S SEALING WAX
MAW'S IMPROVED SUBCUTANEOUS SYRINGES, with Huggett's Permanent Solutions	MAW'S SMELLING BOTTLES
MAW'S IMPROVED VAGINA SPECULUMS, Covered with Web and Elastic Gum	MAW'S SODA WATER TAPS
MAW'S INDIARUBBER TEATS	MAW'S SPIRIT LAMPS
MAW'S INHALERS	MAW'S SPONGE BAGS AND BATHING CAPS
MAW'S ISINGLASS PLASTER	MAW'S SPRAY PRODUCERS
MAW'S LABEL DAMPERS	MAW'S STEAM AND HAND BALL SPRAYS for Antiseptic Purposes
MAW'S LIME JUICE AND GLYCERINE	MAW'S SUPPOSITORY MOULDS
MAW'S LINT	MAW'S SURGICAL APPLIANCES
MAW'S LIPSTICKS	MAW'S SURGICAL INSTRUMENTS
MAW'S MARKING INK	MAW'S SYRINGES
MAW'S MEDICINE CHESTS	MAW'S TEETHING PADS
MAW'S MENTHOL CONES	MAW'S THERMOMETERS
MAW'S MORTARS AND PESTLES	MAW'S TOILET POWDER
MAW'S MOUTH AND THROAT SPRAYS	MAW'S TOOTH BRUSHES
MAW'S NIPPLE SHIELDS	MAW'S TOOTH PICKS
MAW'S OILED SILK	MAW'S TRUSSES
MAW'S PALETTE AND PILL KNIVES	MAW'S VIOLET POWDER
MAW'S PERFUMED TOILET SOAPS	MAW'S WAFER PAPER
	MAW'S WARBURG'S TINCTURE
	MAW'S WATCH SPRING PESSARIES
	MAW'S WAXED PAPER
	MAW'S WHITE DEMY PAPER

TAYLOR'S SUPER A1 LINT.

SPECIAL TERMS TO SHIPPERS. SAMPLES AND QUOTATIONS ON APPLICATION.

For further particulars see Quarterly Price Current and Book of Illustrations, which will be forwarded on application, enclosing Business Card, post free to any part of the world.

S. MAW, SON & THOMPSON,

MANUFACTURERS OF

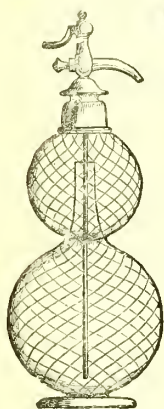
SURGICAL INSTRUMENTS & DRUGGISTS' SUNDRIES,**7 to 12 Aldersgate Street, LONDON, E.C.**

MAY, ROBERTS & CO.

9 CLERKENWELL ROAD, LONDON, E.

Are open to make special arrangements with Country Proprietors to hold stock in London of their Proprietary Articles

TERMS ON APPLICATION.



DOWN AGAIN!!!

FEVRE'S SELTZOGENES.

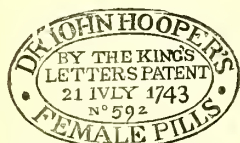
	2 PINT.	3 PINT.	5 PINT.	8 NT.
Caned, each	7/	8/	12/5	2/9
	2 PINT.	3 PINT.	5 PINT.	8 NT.
Wired, each	6/6	7/9	11/9	1/11

£2 worth or more, 5 per cent. discount.

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

BUYERS ARE CAUTIONED TO SEE THAT THEY GET THE



GENUINE DR. JOHN HOOPER'S PILLS,

Which may be known by the Name of the Inventor being on the Government stamp.

Show Cards will be sent on application to

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, C.

AMERICAN BUYERS are particularly Caution!!!

Telegraphic Address—"FEEDING BOTTLES LONDON."

"MAY-ROBERTS" WATER BATH,

REGISTERED.

This Water Bath will supply a long-felt want amongst Chemists and Perfumers, where small quantities of materials have to be dealt with.

The old form of Water Bath necessitates the use of a second vessel for pouring the melted Pomade, Cream, or other substance into the bottles or jars in which they are sold. In the "MAY-ROBERTS" Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars direct from the bowl. The Bath is also supplied with an earthenware cover.



1 PINT.	5 PINT.	10 PINT.
Each 3/0	5/6	9/6

MAY, ROBERTS & CO.,
9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

MAY, ROBERTS & CO.

9 CLERKENWELL ROAD, LONDON, E.C.

TELEGRAPHIC ADDRESS—"FEEDING BOTTLES LONDON."

CARRIAGE ON SUNDRIES.—We allow 5 per cent. discount on orders for £2 worth of "SUNDRIES" in lieu of Carriage. By this arrangement our Friends are enabled to have enclosures sent with our goods, which they were unable to when we paid Carriage.

NO TRAVELLERS EMPLOYED — BUYERS ARE THEREFORE SPARED THEIR EXPENSES. COMPARE OUR PRICES.

REDUCED PRICES FOR FEEDING BOTTLES.



"Sandringham." Earthenware Tops.



"Sandringham." Screw Glass Stoppers.



"Sandringham." Metal Screw Caps.



"Colonial." Wood Tops.

Sandringham (1s.) — WHITE, Earthenware Tops—

With White Fittings, each in	s. d.
box, two brushes .. per doz.	5 6
With Black Fittings, each in	
box, two brushes .. per doz.	6 0
Spare White Fittings ..	2 9
Spare Black Fittings ..	3 3
Spare Bottles	1 4

Sandringham (1s.) — WHITE, Screw Glass Stoppers—

With White Fittings, each in	s. d.
box, two brushes .. per doz.	5 6
With Black Fittings, each in	
box, two brushes .. per doz.	6 0
Spare White Fittings ..	2 9
Spare Black Fittings ..	3 3
Spare Bottles	2 0

Sandringham (1s.) — WHITE, Screw Metal Caps, Nickel plated—

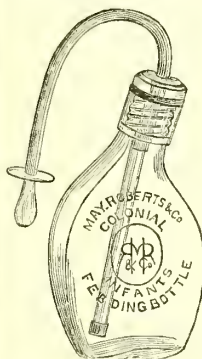
With White Fittings, each in	s. d.
box, two brushes .. per doz.	6 0
With Black Fittings, each in	
box, two brushes .. per doz.	6 6
Spare White Fittings ..	3 6
Spare Black Fittings ..	4 0
Spare Bottles	1 6

Colonial (6d.) — GREEN, Boxwood Tops—

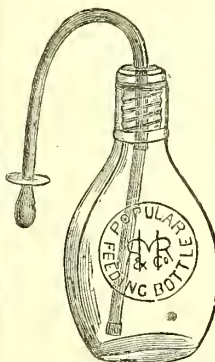
With White Fittings,	s. d.
1 dozen in box per doz.	2 4
With Black Fittings,	
1 dozen in box per doz.	2 7
With White Fittings,	
each in box per doz.	2 10
With Black Fittings,	
each in box per doz.	3 1
If with White instead of Green	
Bottles per doz. 2d. extra.	
Spare White Fittings per doz.	1 4
Spare Black Fittings ..	1 7
Spare Green Bottles ..	0 10
Spare White Bottles ..	1 0

Colonial (6d.) — GREEN, Screw Glass Stoppers—

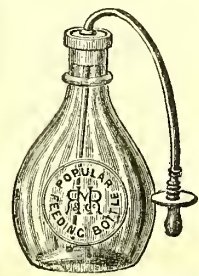
With White Fittings,	s. d.
1 dozen in box per doz.	3 0
With Black Fittings,	
1 dozen in box per doz.	3 3
With White Fittings,	
each in box per doz.	3 6
With Black Fittings,	
each in box per doz.	3 9
Spare White Fittings ..	1 6
Spare Black Fittings ..	1 9
Spare Bottles	1 9



"Colonial." Screw Glass Stopper.



"Popular." Screw Glass Stoppers.



"Popular." Wood Tops.

Colonial (1s.) — WHITE, Earthenware Tops—

With White Fittings, each in	s. d.
box, two brushes .. per doz.	4 9
With Black Fittings, each in	
box, two brushes .. per doz.	5 3
Spare White Fittings ..	2 3
Spare Black Fittings ..	2 9
Spare Bottles	1 0

Colonial (1s.) — WHITE, Screw Glass Stoppers—

With White Fittings, each in	s. d.
box, two brushes .. per doz.	4 9
With Black Fittings, each in	
box, two brushes .. per doz.	5 3
Spare White Fittings ..	2 3
Spare Black Fittings ..	2 9
Spare Bottles	1 9

Popular (6d.) — GREEN, Boxwood Tops—

With White Fittings,	s. d.
1 dozen in box per doz.	2 4
With Black Fittings,	
1 dozen in box per doz.	2 7
With White Fittings,	
each in box per doz.	2 10
With Black Fittings,	
each in box per doz.	3 1
If with White instead of Green	
Bottles per doz. 2d. extra.	
Spare White Fittings per doz.	1 4
Spare Black Fittings ..	1 7
Spare Green Bottles ..	0 10
Spare White Bottles ..	1 0

Popular (6d.) — GREEN, Screw Glass Stoppers—

With White Fittings,	s. d.
1 dozen in box per doz.	3 0
With Black Fittings,	
1 dozen in box per doz.	3 3
With White Fittings,	
each in box per doz.	3 6
With Black Fittings,	
each in box per doz.	3 9
Spare White Fittings ..	1 6
Spare Black Fittings ..	1 9
Spare Bottles	1 9

Popular (1s.) — WHITE, Earthenware Tops—

With White Fittings, each in	s. d.
box, two brushes .. per doz.	4 6
With Black Fittings, each in	
box, two brushes .. per doz.	5 0
Spare White Fittings ..	2 3
Spare Black Fittings ..	2 9
Spare Bottles	1 0

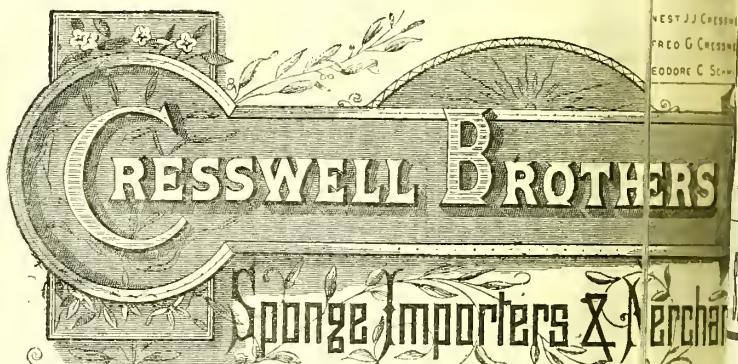
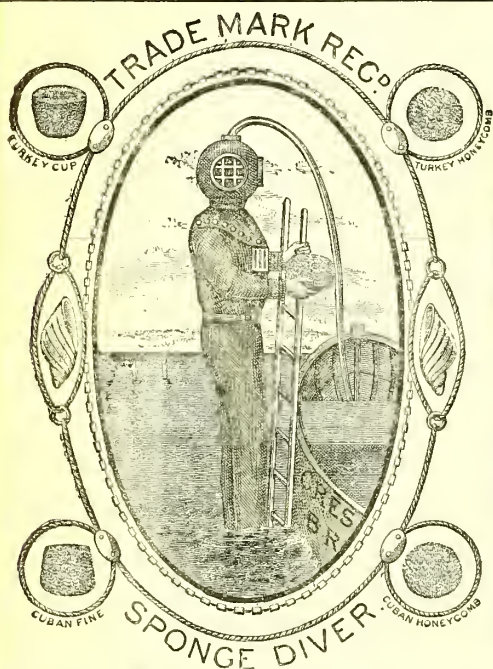
Popular (1s.) — WHITE, Screw Glass Stoppers—

With White Fittings, each in	s. d.
box, two brushes .. per doz.	4 9
With Black Fittings, each in	
box, two brushes .. per doz.	5 3
Spare White Fittings ..	2 3
Spare Black Fittings ..	2 9
Spare Bottles	1 9

SPECIAL DISCOUNT FOR FIVE AND TEN GROSS LOTS

HEAD-QUARTERS FOR SPONGES

Telegraphic Address—"CUBANS LONDON."



SPONGES OF EVERY DESCRIPTION DIRECT

GREECE, TURKEY, THE BAHAMAS, FLORIDA

2, RED LION SQUARE,

LONDON.

REASONS WHY CRESSWELL BROTHERS' SPONGES ARE BEST AND CHEAPEST:

CRESSWELL BROTHERS are the ONLY FIRM who have their own buying establishments on the coast and who hold the whole process of the Sponge business in their own hands. They thus obtain their goods cheaper than any house in the trade, and can consequently sell cheaper.

CRESSWELL BROTHERS execute all orders from the LARGEST and BEST ASSORTMENT in the world. The requirements of every customer can therefore be effectually studied and complied with.

CRESSWELL BROTHERS' Sponges are personally selected on the Fisheries, and are the best that can be produced. All C. B.'s customers can depend upon receiving the qualities best adapted for their trade. Sponges are originally selected with a view to suiting each particular class of trade.

FACT VERSUS FICTION.

Buyers are cautioned against being misled by bombastic advertisements and circulars which are either totally unfounded statements, or grossly exaggerated facts. Cresswell Brothers' statements are founded on FACTS and can be substantiated to the fullest extent.

Buying establishments at Aegina (Greece) and Calymnos (Turkey); Nassau, Bahama Islands, and Key West, Florida.

SOLE AGENTS FOR THE CUBAN SPONGE FISHING COMPANY.

Branches at 3 ALBION CRESCENT, GLASGOW; 11 WETERINGSTRAAT, AMSTERDAM.

GOVERNMENT CONTRACTORS.

AGENCIES IN ALL THE MOST IMPORTANT EUROPEAN AND COLONIAL CENTRES.

Buyers of Sponges should never purchase without first writing to Cresswell Brothers for samples and prices. They will get **WHAT THEY WANT.**

WRITE FOR NEW EDITION OF ILLUSTRATED PRICE LIST.

CRESSWELL BROTHERS, 2 Red Lion Sq. (next to Church), LONDON.

No connection whatever with a Company trading under a similar name in the same square.

IMPORTANT TO SHIPPERS.

SPONGES.

FACTS SPEAK LOUDER THAN WORDS."

The attention of Buyers is called to the following FACTS in connection with SPONGES :—

RESSWELL BROTHERS are the Largest Exporters.

RESSWELL BROTHERS hold the Largest Stock.

RESSWELL BROTHERS employ the Largest Staff.

RESSWELL BROTHERS sell at the Lowest Prices.

Buyers of SPONGES are invited to compare RESSWELL BROTHERS' Sponges with any others they may have been using. It will then be clearly demonstrated that RESSWELL BROTHERS' are the Best and Cheapest in every sense.

RESSWELL BROTHERS' Price List will be sent, post free on application, to any part of the world. It is the largest and most comprehensive, and contains lower quotations than any ever issued.

in connection with a Company trading under a similar name in the same Square.

PLEASE NOTE CAREFULLY STYLE AND ADDRESS OF FIRM :—

RESSWELL BROTHERS,

SPONGE IMPORTERS AND MERCHANTS,

2 RED LION SQUARE, LONDON, W.C.

[See also opposite page.

EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays per line, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C., and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, *ns e.g.*, £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount.

FOR DISPOSAL.

Drugs and Chemicals.

Clearance lines; 20,000 good, small, poppy heads, 2s. per 1,000—lot for 25s.; 200 lbs. rad. rhei, E.L., for tincture, 7d., lb. lot 6d. lb. Kemp, Druggist, Horncastle.

Seven lbs. chlorodyne, 2s. 6d., full strength; 1 lb. oil nutmegs; 1 lb. oil mace; 1 lb. oil caraway; 4 lbs oil mace, expressed, six African Restorer, 5s. doz. or exchange. Andre, 144 Mill Street, Ancoats, Manchester.

Hop resin, a very powerfully appetising and soothing tonic; would be an invaluable appetising adjunct in horse balls, pills, and medicated lozenges; being a by-product 6d. per lb. only, 7 lbs. 1s. 6d. Hay, Manufacturing Chemist, Hull.

Sp. vini rect., 56 over proof; manufacturing pharmacist has about 30 gallons for disposal, mostly clear, remainder simply requiring filtering; 18s. per gallon accepted, taking lot; cash with order. Sample on application to Butterworth, Bradford, Yorks.

Surplus after Stocktaking.—Oil rose geranium, citronell., H.G. oil mint, essence lemon, super ess., bergamot, super acetic acid, beeswax, glycerine, 1280 chem. pure, black pepper, Calif. honey, sac. ustum., gold bronze; also 40 lbs. cyanide potash; insect powder; cod liver oil; price on application. Sowerby, Chemist, Middlesbrough.

Proprietary Articles.

Patent medicines, list sent; exchange. Address, G. Cowdale, 99 Cambridge Street, Ringby.

Half-dozen quart Eucalyp water, quite clean; what offers? Griffith, Burnham, Somerset.

Surplus stock patents, slightly soiled, half retail price. Send for list, Younger & Ridley, Brampton, Cumberland.

6 3-dozen thin manna cakes, 2s. each; 8 2s. 9d., 2 4s. 6d. Arabian food; 2 2s. 9d. Arabian food biscuits, half retail price. Leigh, Bishop Auckland.

Two 13½d. Eclectica; two 13½d. James's life pills; four 1s. Evans's balm Lebanon; four 13½d. Hooper's pills; three 13½d. and one 2s. 9d. King's dandelion pills; half retail prices; carriage paid. Jones, chemist, Wavertree.

Formulæ.

Reliable recipes, 6d. each; full set of 130, neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Grey hairs; reliable recipe to remove same, and restore to natural colour, like Mrs. Allen's; pays well. Send 13 stamps to 183/30.

Think over this! To increase business and double profits, buy Brooks's recipes, warranted practical.—For half-crown order or stamps, recipes of following specialities (as sample) post free.—"Glycerine Cream," most elegant, economical, and efficacious remedy for chaps, frost bites, roughness of skin, &c. (superior to Beetham's), pays splendidly; "Tie Specific," wonderful remedy, cures like magic, conquers after all others fail; "Embrocatio Alb.", inseparable white oils, equalling Elliman's in utility and appearance; "Jubilee Sauce," cheapest, best, and most appetising sauce in creation, once tasted always bought. T. Brooks, Chemist, Louth, Lincs. Detailed printed list post free.

12

Literature.

Thorowgood's "Materia Medica" (new), 4s. 6d.; Haydn's "Dictionary of Dates," latest edition, uncut, 18s., price 13s. 6d.; Kike's "Physiology," 1880 ed.; Queen Anne's shilling, date 1709, in good condition, 3s. 6d. Evans, 20 Magdalen Street, Oxford.

Optical.

Herbert & Galfrey's spectacles at half the makers' prices; an assortment of about 5½ doz. aqua crystal spectacles, cost 36s. per doz.; 5½ doz. nickelled spectacles cost 15s. 6d. per doz.; 2½ patent folders, cost 30s. per doz. The whole for 6l. 16s. 183/8.

Shop Fittings.

Two bent plate-glass counter-cases, bottom lined with velvet, 1 mahogany shelf at back similar to Maw's A12, 2 ft. long, 16 in. wide, 10 in. high, sloping shelf 5 in. wide, each 36s.; 1 cigar-case, similar to Maw's A35, 4 divisions, 20s. Thompson, Chemist, Bedford.

Second-hand glass, &c., specic jars; one scroll label, glass cover, 31 inches high; pair ditto, 26 inches, arms, and gilt tin covers; pair ditto, 24 inches, arms, and japanned covers; four ditto, 16½ inches, scrolls, flat covers; carboys: 1, 16-gallon, cut stopper; 1, 12-gallon ditto; 2, 9½-gallon, plain stoppers and ebonised plinths; 3, 4-gallon and stands; 1, 1-gallon flat front, five cylinders various, 45 rounds, labelled, good; 141 rounds and pots, labelled; 211 rounds and damaged labels; 16 dozen rounds and jars; and 60 olds, with contents, yellow paper labels; 24 green carboys, caps and labels, 39, 1-gall. blacks, labelled; various ointment and extract pots; two pair drug scales; 1, 24-pill machine. Remittances with orders. Hawke & Son, Wild Court, Great Wild Street, London, W.C.

Miscellaneous.

Printing-press and type; price 4l. 183/23.

Bracher's old pattern mixer, 1 cwt., 10l. 16s/9.

1 gross 8-oz. (8-part) bottles, 6s.; packed. Brewis, Landport.

Rotary racking pump, Invicta, 3l. 10s. "Ozone," Cale Street Distillery, Chelsea

Two 1½-shares in Chemists' Mineral Water Association; offers wanted. Williams, Aldershot.

56 lbs. soluble gum, 9d. per lb.; enclose 1d. for sample. Hugh Edgson, Chemist, Nottingham.

Flower seeds, choice packet, 14 varieties, post paid, 15 stamps. Gardner Bros., Seedsman, Tillicoultry.

Weighing machine, Avery's, in good condition; best offer, or exchange outside lamp. Moore, Chemist, Grimsby.

Exchange 1 gross clean 3d. size vermin-killer for either 1 lb. potass. iodid., 1 lb. opium, 2 oz. morphia, or 4 oz. quinine. Banner, Boiler Street, Liverpool.

Two each Laville's tincture and pills, stamped, perfect, posted to first remittance of 1l.; guinea ammoniaphone, new, never used, 10s. Benson, Great Portland Street, W.

Pocket microscope, Salt's patent, with objective; silver lancet case; Indian arm-copodia; Nelson's "Handbook of Private Formulas;" Wagner's "Chemical Pharmacology." Beale, 58 High Street, Leamington. Two abdomen bandages, Maw 2 and quite new; 1 pessary-mould for six 2 inch; 2 tenax; and Chemist and Druggist every Monday. What offers, cash or exchange? Clark, Stourbridge.

About 500 shop rounds, jars, carboys, macropathic medicine cases, aquarium, 1 lb. iron ointment mortar, filters, "Year-book of Pharmacy," *Pharmaceutical Journal*, pumps, mortars, pill-machines, also several small founts of type. Pearce, Chemist, Stockport. A rear-steerer tricycle, parallel bearing 40-in., geared to 45 in.; very easy work; wants new tire to back wheel; only 5l. 1 gallon pear-shaped carboy, weight 6 lbs. 10. 6d. A 1-gallon tincture-press in good condition 10s.; a mahogany pill-machine, 4-in. cut 12 pills, with rollers; nearly new; 6s. W. Wilkinson, Chemist, Whittlesea.

WANTED.

Entire fittings (not fixtures) for chemist shop. 178/37.

Large size tincture press; cheap. Tregon Chemist, Cardiff.

Second-hand nest of drawers; price 10l. M'Kee, Chemist, Tunstall, Staffs.

Second-hand hydraulic tincture-press. Particulars and maker's name to 19/16.

Dental-engine. Full particulars to 19/16, Albion Terrace, South Lambeth, S.

Tikheed 2s. 6d., 1s. 1½d. Eclectica, or a clean surplus patents. Mickle, Chemist, Liverpool.

New or second hand apparatus, with mercury-wheel complete, for marking glass. Public Analyst, Swansea.

Copies of *The Chemist and Druggist* for January 25, 1883; 4d. given per copy for a first 12 received. 183/23.

Attfield's eleventh, Will's "Materia Medica," ninth; good condition. State price to Watkinson, Farnworth, Bolton.

Lauder Brunton's "Therapeutics," last edition; Diary, 1887; quote post-free price to Phillips, Horwich, Bolton.

Fowne's "Chemistries," Remsen's "Organic Chemistry," Ganot's "Physics." Myers, Welton, Brough, Yorkshire.

Recipes, by importer of Eucalypt honey for best products thereof. H. H. Fiddon, 6 George Yard, Fenchurch Street, London.

British Pharmacopœia, 1885; Mutual Chemical and Pharmaceutical Chemist price to Stent, George Street, Hon.

Attfield's eleventh, Roscoe's "Theoretical Chemistry," Bentley's "Systematic Chemistry," latest editions, good condition lowest price. C. Weston, Newquay, Cornwall.

Address Wanted.

H. de Castro, an artist; has resided in neighbourhood of Torquay, and Sharph, near Bedford. H. Woodward Uttrosete.

CAUTION.—The Mark at the sides, as also the fancy



word **“SANITAS”** alone,



are our Registered Trade Marks.

“ANITAS”

“SANITAS”

SANITAS” DISINFECTING FLUID.—In 1s. bottles; also in jars and casks at 5s. per gallon. The first requisite in all dwelling-houses and sick-rooms for purifying the air, washing wounds, disinfection of linen, and sprinkling on sheets, carpets, &c., and gargling sore throats. The fluid is non-poisonous and colourless; gives no stain, and has the odour of the pine forest.

SEA-WATER SANITAS.”—In 2s. bottles. It combines the disinfecting properties of “Sanitas” with the tonic and antiseptic properties of sea-water, and is particularly valuable for use in the bath.

SANITAS” DISINFECTING OIL.—In 1s. and 4s. bottles; also in jars and casks at 15s. per gallon. For the fumigation of sick-rooms, hospital wards, and infected apartments; for the treatment of lung and throat complaints by inhalation, and for employment as a surgical dressing. It is a powerful parasiticide; it is also a specific for the cure of husk of cattle.

RUDE SANITAS.”—In 1s. bottles and 5s. per gallon. A cheap concentrated form of “Sanitas,” miscible with water in any proportion; for high use as a disinfectant. It may be diluted with from 20 to 200 times its own volume of water. Particularly useful for the disinfection of sewer closets, ash-bins, drains, stables, kennels, farmyards, bilge water, and for street watering.

ANITAS” INSECTICIDE AND LIQUID SOAP.—In 1s. bottles. For the destruction of insects on plants and trees, and for general use as a liquid soap, including washing of woodwork in conservatories, and preventing the incrustation of boilers.

ANITAS” SHEEP DIP.—A non-poisonous combined soap and disinfectant, unrivalled for sheep dipping, and for the cure of rot, scab, and other diseases of animals. It bleaches and softens the wool and kills all insects. In bulk only at 5s. per gallon.

ANITAS” TOILET FLUID.—In 1s. and 2s. 6d. stoppered bottles. For washing the teeth and mouth, and curing offensive breath; for delicately scenting the air of apartments; for use in finger glasses and in cascades, &c. **Invaluable to Smokers.**

ANITAS” DISINFECTING POWDER.—In 6d. packets; 1s. dredgers; in 1-cwt. sacks, and in casks of $\frac{1}{2}$, $\frac{1}{4}$, 1, 2 $\frac{1}{2}$ and 5 cwt. For disinfecting urinals, earth closets, stables, kennels, drains, farmyards, and all offensive and putrid substances. This pleasant preparation is the most powerful disinfecting powder known to science, and is used by most Local Boards of Health, Railway and Shipping Companies, &c.

“ANITAS” SOAPS:—

Hard Soap No. 1, in 6d. bars and by the cwt. for household and bath purposes and general cleansing operations.

Hard Soap No. 2, in 4d. bars and by the cwt. for scrubbing and for servants' use, and for washing linen and clothes. This excellent soap is in use at most Workhouses and Hospitals in Great Britain.

Toilet Soap, in 1s. 6d. boxes of 3 tablets. The most delicious transparent soap available. It is especially free from alkali, and is the best Soap for the Skin.

Brown Windsor, in 7-lb. boxes, at 4s. 8d. each, and in 14-lb. boxes, at 9s. 3d. each. An excellent article for hotels and family use.

Soft Soaps Nos. 1 and 2 in tins; also in $\frac{1}{2}$, $\frac{1}{4}$, and 1 cwt. kegs and upwards. Quite free from all unpleasant odour.

“ANITAS” SOAP POWDER.—In kegs only, from 7s. 6d. to 74s. The most powerful disinfectant and detergent powder known.

“ANITAS” ANIMAL (SOFT) SOAP.—In 1s. pots and in kegs of $\frac{1}{2}$ and $\frac{1}{4}$ cwt. and upwards. For washing horses, cows, sheep, dogs, and cats; the cure of mange and other skin diseases of animals, and for the destruction of insects on animals.

“ANITAS” DISINFECTING JELLY.—In 1s. toilet pots and 3s. 6d. gallipots (for hospital use). For disinfecting cuts, chaps, wounds, burns, &c.

“ANITAS” VETERINARY OINTMENT.—In 2s. 6d. tins; invaluable for application to all wounds, sores, sprains, broken surfaces, and skin diseases in the horse, dog, cat, and other animals. **Prevents and cures Mange.**

“ANITAS” FURNITURE CREAM—In 1s. bottles. For polishing articles of furniture and disinfecting dwelling-rooms or hospital wards at the same time.

“ANITAS” TOOTH POWDER.—In 1s. boxes. An admirable preparation for cleansing the teeth and preserving them from decay and acidity.

“ANITAS” TOILET OR NURSERY POWDER.—In 1s. boxes. It is free from all mineral substances.

“ANITAS” DISINFECTING FUMIGATORS—3s. 6d. each. For fumigating and disinfecting sick rooms, and for use in the treatment of bronchitis, diphtheria, and consumption. **Prevent the spread of disease in the house.**

“ANITAS” AIR PURIFIER.—In 1s. tins. For purifying the air of dwelling-rooms, &c., by placing in saucers and sprinkling upon floors.

“ANITAS” ANTISEPTIC GAUZE.—For surgical purposes; 2 $\frac{1}{2}$ d. per yard.

“ANITAS” DISINFECTING URINAL TABLETS.—In 1s. boxes of 6 tablets, for keeping urinals sweet and wholesome.

“ANITAS” SAW-DUST.—For the disinfection of dog kennels, poultry houses, stables, cattle sheds, &c. In 56 lb. bags, 10s. each.

KILZETT'S BACTERICIDE.—In 2s. bottles. For medical use only, as an antiseptic and germicide.

SOLE MANUFACTURERS,

THE “SANITAS” COMPANY, LIMITED, LONDON.

THE WESTMINSTER COLLEGE.

The Course of Lectures and Classes commenced on Monday, February 20.

The system of study adopted has been tried with the most successful result. The effect of the method of teaching is to develop, strengthen, and enlarge the mental powers—TO EDUCATE. By this system, while sharp pupils make rapid progress, all, even the dull ones, are so interested in their work that they cannot fail to make satisfactory progress. In proof of these statements, gentlemen are referred to the hundreds of Testimonials in the hands of the Principals from former Pupils, and to the high position attained by the school during the Fifteen years it has been established.

At the Examinations held in London in December the following 28 students passed out of 31 who were sent in from this Institution:—

MAJOR.—Mr. H. W. ESDON.

MINOR.

Mr. BROOKES, J.	Mr. GREEN, F.	Mr. REYNOLDS, P.
" BATTY, G. A.	" HURN, A. J.	" ROESON, T. W.
" CALLAM, W. E.	" MACKRIDGE, W.	" ROUTLEY, E. W.
" COOPER, J. J.	" MASTERMAN, F. J.	" RYALL, F. J.
" COOPER, C.	" MORGAN, W. J.	" SPRY, R.
" DAVISON, D.	" PAIN, P.	" STAPLETON, F. W.
" DAVISON, J. R.	" PLEWS, W. H.	" WATKINSON, E. W.
" FRANKLIN, A. J.	" PRIOR, J.	" WESTON, G.
" FORSTER, J. R.	" REES, C. A.	" WILCOCK, F. A.

WILLS'S UNIVERSAL POSTAL SYSTEM.

FEES—Minor, £1 1s.; Major and Preliminary, 10s. 6d.

"Those who cannot attend a school of pharmacy will find 'Wills's Universal Postal System' train them in a way they should go."—*The Chemist and Druggist*.

"Mr. Wills, of Westminster College, one of our most thoroughly successful tutors, extends him a helping hand, leaving it simply his own fault, and deserving it, if he blindly labours on in ignorant darkness."—*Magazine of Chemistry*.

For Prospectuses and other information, apply to

MESSRS. WILLS & WOOTTON
Trinity Square, Borough, London, S.E.

"CONCILIO ET LABORE"

THE MANCHESTER COLLEGE OF PHARMACY,

225 & 227a OXFORD STREET, MANCHESTER.

ESTABLISHED 1877. MANCHESTER, 1882.

DIRECTOR—MR. W. SPENCER TURNER, aided by MR. GEO. CLAYTON.

At the last four Minor Examinations, i.e., October, December, January, February,

TWENTY-SEVEN

Students from the School passed: a list will be sent free on application.

SMALL CLASSES—PERSONAL ATTENTION—THOROUGH WORK—FAIR INCLUSIVE FEES.

The Classes for April are now closed. New Students are working with an Assistant, under Mr. Turner's directions.

THE LONDON HOMŒOPATHIC HOSPITAL AND MEDICAL SCHOOL,

GREAT ORMOND STREET.

A NEW WARD, unoccupied for want of funds, is much needed for Male Patients, and will be opened as soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accouchement cases, the latter specially Certificated.

G. A. CROSS, Secretary

EDINBURGH PHARMACEUTICAL CLASSES

CLASSES FOR PHARMACEUTICAL STUDENTS (Major and Minor) are conducted in the CLASS-ROOMS and LABORATORIES, 41 CHAMBERS ST., EDINBURGH, by Dr. DRINKWATER and Mr. J. G. ROSS, B.Sc.

14

THE LIVERPOOL SCHOOL OF PHARMACY

36 OXFORD STREET, LIVERPOOL

Principal—Mr. J. S. WARD, Ph. Ch., F.C.S., uncl
Prize Medallist, &c.

Demonstrator—Mr. T. W. CARR.

For Preliminary Pupils—Mr. W. Pendlebury.

PASS LIST.

At the recent Examinations 9 were sent in for the Minor viz:—

Mr. J. P. CASEWELL.....	MARKET DRAY
" THOS. EDMONSON.....	COCKERMOUTH.
" G. W. GIBSON.....	WHITBY.
" G. J. KERR.....	LIVERPOOL.
" H. MADDOCK.....	MANCHESTER.
" J. W. WHITELEY.....	GAINSBOROUGH.
" F. H. WILKINSON.....	TRANMERE.

In announcing the Classes for 1888, the Principal has much pride in referring to the grand success of the Liverpool School during the past year, as shown by the Pass Lists.

During the year 1887 more than twice the number passed the various Examinations (Major, Minor, and Preliminary) from this school than were successful in 1886, or in any previous year.

Such results are highly gratifying, and Mr. Ward is determined, with the co-operation of the teachers and the pupils, to maintain the successes of the past.

The Classes are so arranged that Students can join at any time, and the fees are moderate.

Accommodation for indoor pupils, who have the special advantage of pursuing their studies under the supervision of the Principal.

Syllabus, with Time-tables, Fees, Pass Lists, &c., sent free on application.

The Chemist and Druggist of Australasia.

FEBRUARY 1, 1888.

CONTENTS OF NO. 2, VOL. 3.

Editorial articles on "The Pharmaceutical Society of New South Wales Incorporation Bill," "Dental Registration in Victoria" (Important); and "Tariff Revision and Customs Duties on Patent Medicines," &c.
Correspondence on "Rough on Rats," "Peptising Powders," and "Medical Practice."

COLONIAL REPORTS.

New South Wales.—Pharmacy Board—Pharmaceutical Society (Official Report)—The Society's Examinations—Incorporation Bill (Result)—Additions to the Poisons Act—Prosecution under the Sale and Use of Poisons Act—Customs Rules—Toilet Soap in Court.

New Zealand.—Pharmacy Board Official Report—The Result of the Examinations—The Midland Pharmaceutical Association—Prosecution under the Sale of Poisons Act.

Queensland.—Pharmaceutical Society (Report of Meeting)—Examinations—The Quicksilver Mines.

South Australia.—Pharmaceutical Society—Council and Officers—The Society and the Past Society's Finances and General News.

Tasmania.—Correspondence re Hop Bitters—Nitrate of Mercury, &c.

Victoria.—Pharmaceutical Society Council Meeting—Pharmacy Board—The Veterinary Surgeons' Prosecution of an Unregistered Assistant—School of Pharmacy—Kieselguhr in Victoria.

Western Australia.—Patent Medicines and Infant Mortality—Patent Medicines and the New Tariff.

Sponges in Victoria—Trade Notes—The Victorian Tariff, &c. (Copies may be obtained at the London Office, 42 Cannon Street, E.C., 6d. each, or the journal will be supplied to extra Australian subscribers at 5s. per annum.)

BOOKS FOR EVERY CHEMIST'S LIBRARY.

Small 8vo, price 5s.
ING AND TISSUE PRINTING.
 By W. CROFT, F.R.S., V.P.C.S.

STENTS.
 g and Tissue Printing. General Introduction
 for Dyeing Printing—Mordants—General
 on Dye Cotton Dyeing—Linen Dye-
 Dyeing—ool Dyeing—Silk Dyeing—
 Printing—Dyeing—Dyeing—Clearing—
 Reserved of Cutting—Padding Style—
 on Turkeeds—Indigo Blues—Dip Blues
 Blue Style eaming Process—Steam Style
 al Blues—ens—Greys—Coal-Tar Reds—
 , &c.—Violet Spirit Style—Pigment Style—
 Black and Red Styles—Compound Desigs
 ana Style—ating Woollens—Colours and
 Mixing—Thening—Printing—Dyeing Ar-
 ents—Wash Appliances—Drying—Finish-
 tion of Col upon Fibres—Reds—Yellows
 —Greens—Violets or Purples—Blacks.

only previe qualification of which the
 is assumed be possessed is an elementary
 lge of chemis such as may be acquired from
 any of the dimentary treatises on that
 The author building upon this foundation,
 explain the helps of the art from a prac-
 other than fi a theoretical point of view.
 he very ouse endeavours to explain every-
 igh which learner might be puzzled.

don: **GEOFF BELL & SONS, York**
 Street Covent Garden. [2]

WORKS BY DR. DOBELL, Con-
 sulting Physician (late Senior Physician)
 Royal Hospital for Diseases of the Chest,
 n, &c.

Edition, with four additional Chromo-
 lithographs 3vo, cloth, 10s. 6d.

MEDICAL SPECTS of BOURNE-
OUTH and SURROUNDINGS. With
 romolithographs and Photographs from
 stiches by the author, and numerous Cases.
 4to, Illustrated, bound in cloth, 4s. 6d.

ASTHMA Its NATURE and
TREATMENT. suggestive of New Remedies
 of the more efficient Application of Old
 es.

DIET and REGIMEN in SICKNESS
and HEALTH. seventh Edition. Enlarged.

LECTIONS of the HEART and in
NEIGHBOURHOOD. Cases, Aphorisms,
 and Comments. Illustrated. Second
 ue.

LOSS of WEIGHT, BLOOD-
SPITTING and LUNG DISEASE, and AF-
FECTIONS of the LIVER CONNECTED
HEREWITH. second Edition. Coloured
 ate.

WINTER COUGH, CATARRH,
BRONCHITIS, EMPHYSEMA, ASTHMA.
 Coloured Plates Third Edition. With Notes
 Climate.

the MORE DORE CURE in
RANCE and IRLAND.

PANCREATIC EMULSION and
ANCREATIN as first introduced into
 edical Practice by Dr. DOBELL in 1863.

ith 62 Illustrations. Crown,
 pe 7s. 6d.

TEXT-BOOK OF ORGANIC
MATERIA MEDICA. Comprising
 scription of the VEGETABLE and
 MAL DRUGS of the BRITISH
 PHARMACOPOEIA, with some others
 common use Arranged Systemati-
 and especially Designed for
 ents. By **ROBERT BENTLEY,**
 C.S. Eng., L.S., Fellow of King's
 College, London. Honorary Member of
 Pharmaceutical Society of Great
 ain, &c., &c.; one of the three
 ors of the British Pharmacopoeia.

LONDON:
LONGMAN GREEN & CO.

For terms for Advertisements in this page please apply to the Publisher,
 42 Cannon Street, London, E.C.

HOMŒOPATHIC PHAR-
MACOPŒIA—A Companion to
 the "Homœopathic Pharmacopœia."—
 Giving full directions for preparing
 Homœopathic Medicines. By L. T. Ash-
 well. Third edition; post free, 3s. 6d.

KEENE & ASHWELL,
 74 New Bond Street, London.

Price 2s. 6d., post free.

500 PRACTICAL TRADE RE-
CEIPTS for Chemists and Druggists.
 4th Edition (nearly 700 Receipts). Contains ap-
 proximate formulae of several popular Pro-
 prietary Articles, formulae which have been
 devised and published in American, English,
 French, German, Russian, and other pharma-
 ceutical periodicals since the last editions of more
 expensive works, and many private receipts of
 proved value which have never before been
 published. **GEO. H. ROBINSON,** New Bex
 Court, Crystal Palace, S.E.

THE EXTRA PHARMACOPŒIA,
 with the Additions introduced into the
 British Pharmacopœia, 1885, and Medical Refer-
 ences, and a Therapeutic Index of Diseases and
 Symptoms. By **WILLIAM MARTINDALE, F.R.S.,**
 and **W. WYNN WESTCOTT, M.B. Lond.** Fourth
 Edition, 24mo., in limp roan, 7s. Also wide
 Margins for Notes, small 4to., cloth, 7s.

London: **H. K. LEWIS,** 136 Gower St., W.C.

Just Published, Crown Octavo,
 Price 5s.

A PRACTICAL MANUAL OF
VENEREAL AND GENERA-
TIVE DISEASES, including SPER-
 MATORRHOEA, PROSTATORRHOEA,
 IMPOTENCE, and STERILITY in
 Both Sexes. By **M. K. HARGREAVES,**
 M.D.

LONDON:

R. KIMPTON, 126 Wardour Street,
 London, W.

By **PROSSER JAMES, M.D.**

Lecturer on Materia Medica and Therapeutics at the
 London Hospital.

GUIDE TO THE NEW B.P. Epitome of Changes,
 and Account of all the New Preparations. Their
 Characters, Uses, Doses, &c. With Full Therapeutical
 Commentary. Second Edition, enlarged, crown 8vo,
 2s. 6d.

SORE THROAT: ITS NATURE, VARIETIES,
AND TREATMENT; including the Connection be-
 tween Affections of the Throat and other Diseases.
 Fifth Edition, with hand-coloured Plates, crown 8vo,
 6s. 6d.

London: **J. & A. CHURCHILL.**

"A PHYSICIAN'S PHARMACOPŒIA."

Containing the only published formulae for
 making Nitro-Glycerine Tablets, which can be pre-
 pared and sent out in half an hour, being more reliable
 than those usually dispensed. Tr. Strophanthus can
 also be introduced in the same manner; also the
 formula for Peptic Salt, and many other new and
 important remedies, which the Unofficial Formulary
 Committee have not published. By **J. BAILY,**
 Pharmacist, Margate.

London: **MESSRS. CHURCHILL.**
 3s. 6d.

PRICE 6d.

SPECIFIC DISEASE A
CAUSE OF BALDNESS.

The best paper of the season . . .
 able and learned.

Hairdressers' Journal.

RENSHAW, 356 STRAND.

LOISETTE'S System of Memory Training
is the ONLY one by which the Natural
Memory can be so much improved that the
System, as a Device, will be no more needed.

MARK TWAIN (Mr. S. L. Clemens) says
of Professor Loissette: "He showed me
how to **LIGHT UP** the dark cellar of
my Memory." Languages learned rapidly.
MEMORY Prospectus (containing opinions of pupils
who have **PASSED EXAMINATIONS** and
of members of the Medical, Scholastic,
Clerical, Military, and other professions)

post free from Professor LOISETTE, 37, New Oxford-st., London,

Now ready, price 2s. 6d.

AN EPIITOME OF
THE LAW AND PRACTICE
CONNECTED WITH

PATENTS FOR INVENTIONS.

With a Reprint of the Patents Acts of 1883, 1885, and 1886, and Rules and a
Summary of the Patent Laws of Foreign Countries and British Colonies
By JAMES JOHNSON, Barrister-at-Law, and J. HENRY JOHNSON,
Assoc. Inst. C.E., Solicitor and Patent Agent, Authors of "The Patentee's
Manual."

London: LONGMANS, GREEN & CO., Paternoster Row.

Vide Correspondence in 'CHEMIST & DRUGGIST,' Oct. 8, 1887.

DISPENSING LABELS.

"SIR,—A short time ago I had occasion to renew my stock of orange-
coloured labels for lotions, and it struck me a few Indiarubber Stamps
would be very useful, and would save my ordering a large supply of blanks.
So I obtained stamps for 'The Lotion,' 'The Eye-Lotion,' 'The Liniment,'
'The Injection,' and 'The Wash.' With these I can make a printed
heading to my labels suitable to the occasion. Yours truly, "HEDER."

Specimens suitable for Stamping on Blank Labels.

THE LOTION. THE LINIMENT.

On Brass Mount, with Box, Pad, Ink, and Distributor complete, 2/;
or a set of 12 in a large Box, with Pad, Ink, and Distributor complete, 18/

POLLARD'S RUBBER STAMP WORKS

30 & 32 LUDGATE HILL, LONDON, E.C.

ELASTIC HOSIERY.

For quotations of all descriptions see Druggists'
Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, | EVANS, SONS & MASON, LIM.

60 Bartholomew Close.

Montreal, Toronto, and Victoria,
British Columbia.

JAMES TOWNSEND, MEDICAL LABEL PRINTER, EXETER.

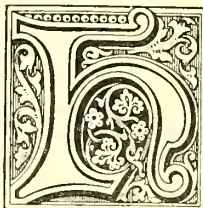


THE LATEST!



TOWNSEND'S

NEW ILLUSTRATED



HANDBILLS

SEND FOR SAMPLE

CHEMISTS' SLIP LABELS, FROM 1/- 100

BILLHEADS

CARD PRICE LISTS

CIRCULARS

POWDER ENVELOPES

PRESCRIPTION DITTO.

TOOTH BRUSH DITTO.

VERMIN KILLER DITTO.

GOLD PAPER LABELS

HANDBILLS

LINSEED MEAL B S

MEMORANDUM FORMS

POISON REGISTER

SYPHON REGISTER

POSTAL BOXES

PRESCRIPTION BOOKS

WRAPPING PAPER

JAMES TOWNSEND, MEDICAL LABEL PRINTER, EXETER.

HAIR BRUSHE.

For quotations of all descriptions see Druggists'
Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, | EVANS, SONS & MASON, LIM.

60 Bartholomew Close.

Montreal, Toronto, and Victoria,
British Columbia.

MEDICATED LOZENGES

For Throat Hospital, British Pharmacopœia, and every description of Medicated Lozenges for
Wholesale and Export Trade, apply to

T. BAGE BLYTON & CO.

PHARMACEUTICAL CHEMISTS.

Manufacturers also of BOILED SWEETS of the BEST QUALITY POSSIBLE.

SOLE PROPRIETORS OF

TWEMLOW'S CHLORODYNE.

Which has an extensive sale among Hospitals, Dispensaries, Medical Men, and CHEMISTS and Druggists throughout
the World. Proportions of active ingredients stated upon the label of every bottle.

Proprietary and other Lozenges made for the Trade. Price Lists sent on receipt of application enclosing business card.

Address—76 GORDON STREET, LOWER BROUGHTON, MANCHESTER.



For the convenience of Chemists who are introducing these Instruments, we now mounting same on an attractive Showcard, chocolate ground, with edges and gold letters. Price per doz., including 1 Card, 38/; ditto lens front, magnifying, 72/. Morocco Pocket Case, containing lens and 1 Straight Clinical, 9/ the set. 1/ New Certificates to any of above, 15/ doz. extra.

Special quotation for quantities.

F. DARTON & CO.,
ESTABLISHED 1834.

WHOLESALE OPTICIANS
Makers to
Her Majesty's Government,

45 St. John St., West Smithfield, London, E.C.
Telegraphic Address—"EXCEPTIONAL LONDON."

CHEMISTS commencing the Spectacle business will find these Show Cases arranged with an assortment of Spectacles and Folders of all sights, to meet the requirements of purchasers. The quality and quantity may be varied to suit any class of trade at customer's wish. The Spectacle Show Case is of Solid Polished Mahogany, well made and finished, to stand any climate. Large Coloured Show Cards sent with each case, with descriptive pamphlet, &c.

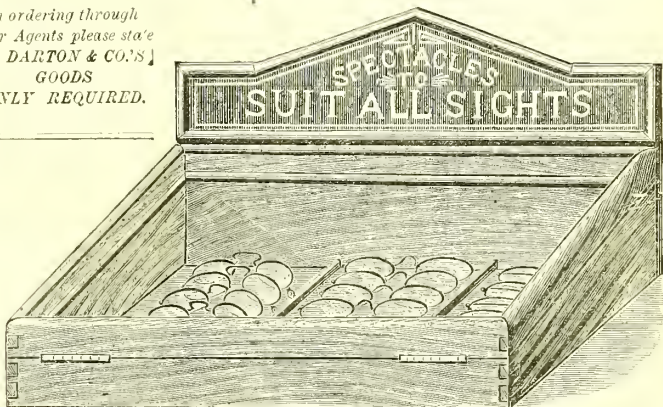
In ordering through
your Agents please state
F. DARTON & CO.'S]
GOODS
ONLY REQUIRED.

Send for **F. DARTON & CO.'S**
NEW PRICE LIST FOR 1888.

A FACT!

Darton's 2 Guinea Spectacle Show Case	real, ses	£4 11s.
Darton's 3 Guinea	ditto ditto ..	£7 5s.
" 6	ditto ditto ..	£15 12s.
" 10	ditto ditto ..	£26 15s.

* This case we strongly recommend for Export.



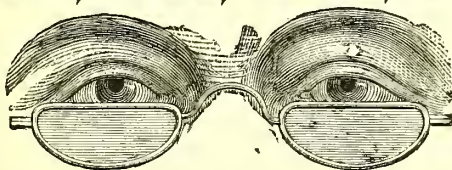
No. 1 Case, price, £2 2s.; No. 2, £3 3s.; No. 3, £6 6s.; No. 4, £10 10s.; No. 5, £21
Send for fully Illustrated Catalogue and Descriptive Pamphlet, with Table of Sights, post free on receipt of trade card.

J. RAPHAEL & CO.

CHEAPEST HOUSE IN THE TRADE FOR

SPECTACLES, FOLDERS, FIELD, OPERA, & MARINE GLASSES.

Wholesale only.



TRADE  MARK.

Repairs Returned Same Day.

13 OXFORD STREET, LONDON, W.

FORD, SHAPLAND & CO.

METAL LABEL & GENERAL PRINTERS, ENGRAVERS, &c., 6 GREAT TURNSTILE, LONDON, W.C.

COLOURED COUNTER BILLS,

Printed in Colours, and specially designed for Chemists' Advertising. A Great Novelty.

CHEMISTS' COUNTER BILLS,

On GOOD WHITE PAPER, at LOWEST PRICES ever offered.

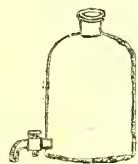
10,000 Crown 8vo. Bills (7½ in. × 5 in.) **12/0**

10,000 Demy 8vo. Bills (9 in. × 5½ in.) **17/6**

ALL OTHER SIZES AT EQUALLY LOW RATES. SAMPLES AND PRICES ON APPLICATION.

CHEMISTS' FLY PAPERS,

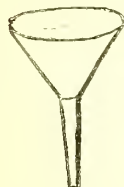
Chemically prepared and guaranteed to be thoroughly effectual; printed with own name and address and advertisements on the four sides. Specimens and Prices on application.



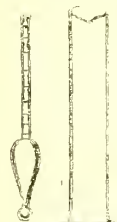
1.—10/6



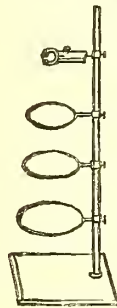
2.—8d. to 2/6



3.—2d. to 3/6



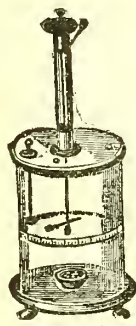
4.—2/6 5.—1/3



6.—3/6.



7.—8d. to 4/-



8.—£4 4/-

J. ORME & CO.

(Late M. JACKSON & CO.),

MANUFACTURERS

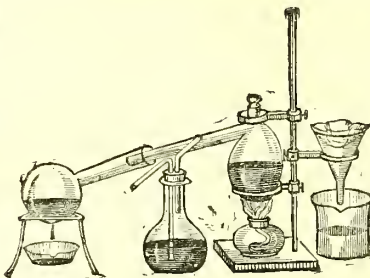
OF

SCIENTIFIC APPARATUS,

AND IMPORTERS OF

Finest BOHEMIAN
and GERMAN
GLASS AND PORCELAIN

CHEMICAL APPARATUS,



ALSO

PURE CHEMICALS

For Analysis,

*By appointment to Her Majesty's Honourable Board of Inland Revenue;
Science and Art Department and Government Schools at South
Kensington; the Pharmaceutical Society of Great Britain,
&c., &c.*

APPARATUS SECURELY PACKED FOR THE COLONIES AND FOREIGN PARTS.

NEW PRICE LIST OF CHEMICAL APPARATUS,

Containing 600 Illustrations, price 6d.

Complete Illustrated Catalogue of Scientific Apparatus,
nearly 1,000 Woodcuts, price 2/6.

J. ORME & CO.,

65 BARBICAN, LONDON.

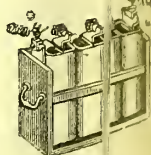


1/8 1/6

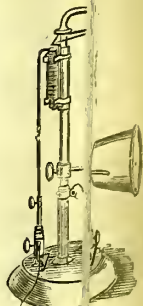
7.

1 4/6

30/-



13.—£1 1/-



14.—£2/-

May be had on application, enclosing Business Card.

S. MAW, SON & THOMPSON'S

QUARTERLY

Price Current

AND

BOOK OF ILLUSTRATIONS

OF

SURGEONS' INSTRUMENTS & APPLIANCES

INSTRUMENTS, &c., FOR VETERINARY PURPOSES.

DRUGGISTS' APPARATUS, IMPLEMENTS, UTENSILS,

And other Requisites employed in Pharmacy and the Dispensing of Medicines.

MEDICAL GLASS AND EARTHENWARE.

SHOE FITTINGS, SHOW CASES.

SPECIFIC JARS, SHOW BOTTLES.

LINT AND SPREAD PLASTERS.

HAIR, TOOTH, AND NAIL BRUSHES.

TOILET AND SMELLING BOTTLES.

FEEDING BOTTLES.

Proprietary Articles, Perfumery, and

DRUGGISTS' SUNDRIES OF ALL KINDS

MANUFACTURED AND SOLD BY

S. MAW, SON & THOMPSON, ALDERSGATE STREET, LONDON

FORWARDED POST FREE TO ALL PARTS OF THE WORLD.

Chemists and Druggists not receiving the above who are desirous of doing so, are requested to make application enclosing Business Card, on receipt of which their names will be placed on the Register for all future issues.

TO THE
CHEMISTS & DRUGGISTS
 OF
GREAT BRITAIN.

TELEGRAPHIC ADDRESS: *St. George's, Middle St.,*
COLEMAN, *NORWICH,*
December, 1887.
 GEORGE'S, NORWICH.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each.
 Trade prices on application.*

P.S.—Where the Licence is not held we are willing to pay the entire cost of a Retail Licence (the holder of which can sell any kind of Wines) if an assorted order of 12 dozen is sent us of any of our preparations. List on application. Our Liebig's Extract of Meat and Malt Wine **WITHOUT QUININE** commands a very large sale, and is recommended by over one thousand medical men who have sent us testimonials in its favour.

SOLE MANUFACTURERS—

COLEMAN & CO., LIMITED,
 ST. GEORGE'S, NORWICH,
 AND 3 NEW LONDON STREET, LONDON, E.C.

EIGHT PRIZE MEDALS AWARDED.

GOODALL'S
HOUSEHOLD SPECIALITIES.

Yorkshire Relish

THE MOST DELICIOUS SAUCE IN THE WORLD.
 To Chops and Steaks, Fish, &c., it is incomparable. In Bottle 4d., 1s., and 2s. each.
 CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & CO. No other is genuine.

Goodall's
Baking Powder

THE BEST IN THE WORLD.
 Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., and 5s. Tins.

Goodall's
Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. In Bottles, 6d., 1s., and 2s. each.

Goodall's
Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Sold in Boxes, 2d., 1d., and 1s. each.

Goodall's
Blanc Mange Powder

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and Delicious Blanc-Mange may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

Goodall's
Egg Powder

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg, and every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One sixpenny tin will go as far as fifty five eggs. In 1d. Packets; 6d., 1s., 2s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO.,
 WHITE HORSE STREET, LEEDS

A Monthly Price List of Druggists' Supplies,
 Patent Medicines, &c., can be had Post
 Free on application.

TYRER'S SAUCES

AND

"BOROUGH" KETCHUP.



DO NOT THROW MONEY AWAY

BUT WRITE FOR A FREE SAMPLE OF

Tyrer's "BOROUGH" Ketchup

SENT FREE TO ANY ADDRESS

SILVER MEDAL LONDON.

THE GIANT 1^D. BOTTLE OF SAUCE.

In Half-Gross Boxes at 6/6 per Gross.*

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE, OR READING SAUCE.

1. Sample Bottles, dozen parcels	...	per gross	5/	extra quality	6/
" " $\frac{1}{2}$ gross boxes	...	"	5/6	"	6/6
2. Giant Bottles, dozen parcels...	...	"	6/	"	8/
" " $\frac{1}{2}$ gross boxes	...	"	6/6 *	"	8/6
Bottles (flat or round), reputed $\frac{1}{2}$ -pint	...	"	16/	"	24/
Bottles (flat or round), reputed pint	...	"	26/	"	32/
pint Imperial Round Stoppered Bottles	...	"	30/	"	36/
pint " " "	...	"	50/	"	60/
2 $\frac{1}{2}$ -gallon Casks (casks free)	...	each	20/	"	32/

ESSENCE OF ANCHOVIES.

Bottles, reputed $\frac{1}{2}$ -pint, per gross	30/	extra quality	48/	1-gallon Bottles (bottles free) ...	4/ and 6/6 each
Bottles, reputed pint	54/	"	90/	12 $\frac{1}{2}$ -gallon Casks (cask free) ...	40/ " 70/ "

ROYAL CAFÉ SAUCE.

In 8-oz. Square Stoppered Bottles, 48/ per gross.

A rich, fruity Sauce of fine flavour, and worth especial attention, as being the most saleable in the market.

SAMPLES OF ANY KIND SENT FREE OF ALL COST BY

PETER TYRER,

The "Borough" Ketchup and Sauce Maker, 70 Long Lane, BOROUGH, LONDON, S.E.

SCOTCH AGENCY:—113 WEST NILE STREET, GLASGOW.

Also sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.; BURGOYNE & CO., 16 Coleman Street, LONDON, E.C.; JOS. TRAVERS & SONS, 119 Cannon Street, LONDON, E.C.

TOWER TEA.

INJUNCTION.

IN THE HIGH COURT OF JUSTICE, Chancery Division, on the 23rd July, 1887, the case of THE GREAT TOWER STREET TEA COMPANY, Limited, versus LANGFORD & CO., Plymouth, was decided. Mr. Justice Stirling (without calling upon Counsel for the Plaintiffs to reply) gave judgment in favor of The Great Tower Street Tea Company, Limited, and granted a Perpetual Injunction, with costs, restraining the Defendants from packing their Teas in the manner complained of, or in such way as would lead the public to suppose they were the Teas of the Plaintiffs.



Tower Tea

Registered Trade Marks, Nos. 44,027 and 43,952.

THE ABOVE TRADE MARKS APPEAR ON EVERY PACKAGE.

THE GREAT TOWER STREET TEA COMPANY, Limited, is resolved to protect its Agents in every part of the country, and has instructed its solicitors to proceed in the most peremptory manner against all persons infringing upon its rights. This valuable Agency is a certain source of income—the public ask for the Tea, and Christ will improve their standing by pushing it.

TOWER TEA is a standard quality. It is widely advertised. Absolutely NO RISK to Agents.

APPLICATIONS FOR THE AGENCY for the Sale of Tower Tea will have prompt attention.

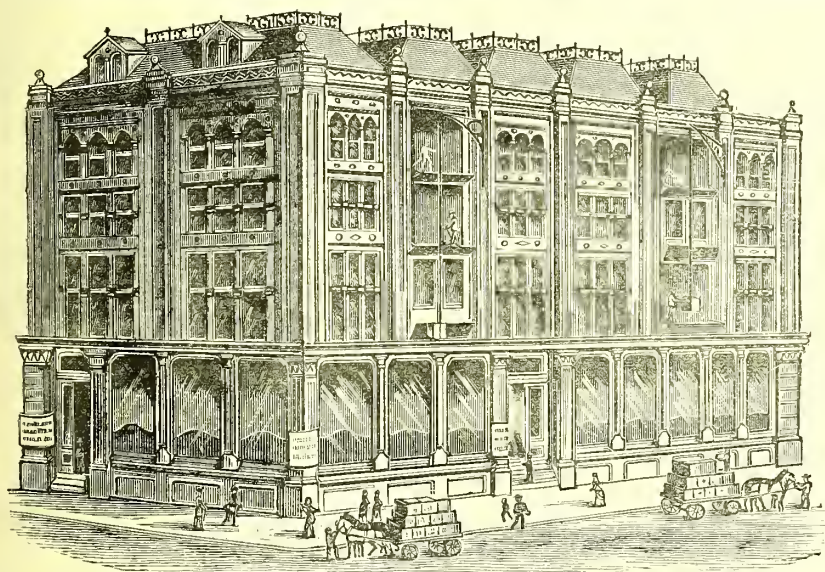
THE LONDON BROKEN TEA	for retail at	1/8
ASSAM CONGOU, New Season's Whole Leaf Tea	„	1/8
THE LONDON TWO-SHILLING TEA	„	2/0

THE GREAT TOWER STREET TEA CO., LTD.
3 JEWRY STREET, LONDON, E.C.

HESELTINE'S

THE PREMIER TEA OF INDIA AND
CEYLON, IS THEIR SPECIAL IMPORTATION
AND THE PERFECTION OF TEA.

REGISTERED "TAPRABUNDA" TRADE MARK.



OFFICES AND DUTY PAID WAREHOUSES.

For Retail at 1s. 8d., 2s., and 2s. 6d.

In Lead Packets, $\frac{1}{4}$ lb., $\frac{1}{2}$ lb., and 1 lb.

Terms of Agency, and Samples of the Tea, on application.

W.M. HESELTINE & SON,

56 Wilson Street, and 1 & 3 Earl Street, Finsbury,
LONDON, E.C.

AGENTS WANTED WHERE NOT ALREADY REPRESENTED.

WHAT YOU CAN
WHAT YOU SHOULD
SELL
CASSELL'S CEYLON TEAS

THE LANCET, September 25, 1886, says of Cassell's Ceylon Teas:—

"The Tea Plantations of Ceylon have been a great success, and have added in an important degree to the material resources of the Island. The sample now before us is very satisfactory. There is no facing or other mineral matter. The leaves are small and clean, and give a strong decoction of delicate flavour. Such Tea may well replace the product of China."

THE GROCER, January 2, 1886, says:—

"The Ceylon Teas Messrs. Cassell have named and registered as 'The Tea of the Future,' a title which will most probably prove true, if the consumption of this really fine article increases in the same ratio that it has done during the past two or three years."

"FRAGRANT TEA,"
"PURE AS IMPORTED,"

In Air-tight Lead Package, $\frac{1}{4}$, $\frac{1}{2}$, and 1 pound.

Charged $\frac{1}{8}$ sells 2/, 2/ sells 2/6, 2/6 sells 3/.

Agents appointed in City, Town, and Village.

Write for Sample Packages, sent post-free.

Handbills, Showcards, &c., sent with each order.

THIS TEA COMMANDS A SALE.

ADDRESS:—

J. CASSELL & CO., 80 Fenchurch St. LONDON.

DESIRABLE & PROFITABLE AGENCY FOR CHEMISTS.

SPRING BLOSSOM CEYLON TEA.

Packed in three qualities, in handsome and attractive packages, and sent out in cases containing 40 lbs. each, to hold one size only, either $\frac{1}{4}$ lb., or $\frac{1}{2}$ lb. Air-tight Tin Canisters, to sell retail at 2s., 2s. 6d., and 3s. per lb. Quarter Pound Samples on receipt of Stamps.

Terms—Cash, less discount of 3d. in the £, carriage paid, or Two months net on receipt of satisfactory London reference.

Our Fortnightly Price Current Post Free on application.

CAVE, JOHNSON & CO., WHOLESALE TEA AND COFFEE DEALERS, 8 LIME ST., LONDON, E.C.

BANKERS—WILLIAMS, DEACON & CO.

[2]

N.B.—This Tea being packed in Air-tight Tin Canisters is not liable to be deteriorated by the flavour of any other foreign substance.

BRAND & CO.'S
PEPTONES
 OF
BEEF,
MUTTON,
VEAL,
 AND
CHICKEN.

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

BRAND & CO'S.
SPECIALTIES FOR INVALIDS.
 CONCENTRATED BEEF TEA, VEAL, MUTTON & CHICKEN BROTHS;
 TURTLE SOUP & JELLY, CALF'S FOOT JELLY, MEAT LOZENGES.
 ESSENCES OF BEEF & MUTTON VEAL AND CHICKEN.
 SOLE ADDRESS, 11 LITTLE STANHOPE STREET, MAYFAIR, W.

Edwards' Desiccated Soup.
 BY ROYAL LETTERS PATENT
 HIGHEST AWARDS:

International Health Exhibition, LONDON, 1884.
 International Exhibition, LIVERPOOL, 1886.

Consists of the finest Vegetables and Extract of Beef in a dry state. The Manufacturers beg to direct the attention of the Trade to the above article commanding a ready and remunerative sale. It is put up in a neat and attractive form, in 1-lb., $\frac{1}{2}$ -lb., and $\frac{1}{4}$ -lb. tins, to sell at 1s. 3d., 8d., and 4d., also in tins containing 1 oz. at 1d. These are packed in cases of 36 1-lb., 48 $\frac{1}{2}$ -lb., or 144 $\frac{1}{4}$ -lb. tins; the 1d. packets in gross and half-gross boxes in cases of 12 gross; cases, tins, and cases free. A liberal supply of Show Cards, Glaciers, and printed matter, consisting of Circulars, Medical Testimonials, Press Opinions, and Counters bearing name and address.

Sample, with Terms, free on receipt of Business Card.

FREDK. KING & CO., LI.
 26 WARING STREET, BELFAST, and
 3 and 6 CAMOMILE ST., E.C.

PURE WATER.
 IMPORTANT TO CHEMISTS, &c.

BRACHER'S
AUTOMATIC DISTILLING APPARATUS
 Should be in every Pharmacy.
 It is Simple, Satisfactory, and Cheap.



Amongst many advantages possessed by these Stills, it should be mentioned that each apparatus being complete in itself requires but little attention when working; the space occupied is considerably less than is usually the case; it is very portable, and easily cleaned.

MANUFACTURED BY
BRACHER & CO.

Inventors and Patentees, West Hill, WINCANTON.
 SHOW ROOMS:—LONDON—100 Houndsditch; MANCHESTER—24 Corporation Street; WOLVERHAMPTON—2 Cleveland Street.
 All communications to WINCANTON.

MITRE TEA.

COMFORT & PROLONG YOUR EXISTENCE
BY DRINKING

MITRE
TEA.



Mitre "Broken Leaf"	s. d. 1 4
Mitre "Broken Am. Pekoe" ...	1 8
Mitre "Thrift" (whole leaf)	1 8
Mitre "Kee-Mun" ...	2 0
Mitre "Amgoorie" ...	2 6



MITRE
TEA.



Mitre "Broken Leaf"	s. d. 1 4
Mitre "Broken Am. Pekoe" ...	1 8
Mitre "Thrift" (whole leaf)	1 8
Mitre "Kee-Mun" ...	2 0
Mitre "Amgoorie" ...	2 6

Fac-Simile of Show Card distributed Gratis to all Agents.

Sold by **Specialty Selected Agents.** Wrapped in $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., & 1-lb. Parcels.

VALUABLE AGENCY.

Free Show Cards, Enamelled Iron Tablets, Posters, Window Transfer, and Handbills with Agent's Name supplied free. Newspaper and Railway Station Advertisements to suit the requirements of Agents. Applications for Agencies where unrepresented will receive prompt attention. Price Current and Pamphlet, with Terms, post free.

KEARLEY & TONGE, MITRE SQUARE, **LONDON, E.C.**
ALDGATE,

EIGHT PRIZE MEDALS AWARDED.

TANGLEWOOD,	WHITE ROSE,	STEPHANOTIS,	} 16/, 20/, 28/, 48/, and 84/ per doz.
OPOPONAX,	MATHIOLA,	WHITE HELIOTROPE.	

The Invigorating LAVENDER SALTS (Registered), 16/ and 32/ per doz.

"Under the title of 'Lavender Salts' the Crown Perfumery have prepared a new invigorating smelling salts. Here we have a delightfully fresh perfume of lavender, mingled with something most invigorating and refreshing, a delightful addition to every toilet table, and a most agreeable deodoriser."—*Ladies' Pictorial*.

OPALINE FACE POWDER White, Rose, and Rachel. Packets, 3/6 and 7/ per doz.; boxes, 15/ per doz. Recommended by **MADAME ADELINA PATTI**.

BEST OLD ENGLISH TRANSPARENT SOAP, unseented, 36/ per gross.

THE CROWN PERFUMERY CO^Y., 177 New Bond St., LONDON.

New Illustrated Price List free by post; also Show-cards on receipt of instructions for enclosure.



26

"THE BEST NATURAL APERIENT."

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Waters with marks, names, and designations very similar to those which are used by the **APOLLINARIS COMPANY, LIMITED**, for the **NATURAL MINERAL APERIENT WATERS** imported by them.

Under these circumstances the **APOLLINARIS COMPANY, LIMITED**, feel compelled to caution the public that the **HUNGARIAN BITTER WATER** sold by the **COMPANY** always bears the name of the **APOLLINARIS COMPANY, LIMITED**, on the Label.

TRADE MARK



SODEN MINERAL PASTILLES

TRADE MARK



The **BEST** and **SAFEST** REMEDY for all Affections of the **THROAT, CHEST, LUNGS,**

COUGHS, ASTHMA, SORE THROATS, BRONCHITIS, CATARRH, CONSUMPTION.

19 HALEY STREET, CAVENDISH SQUARE, W.—I have watched the effects of the Soden Waters for a considerable period, and regard them extremely valuable in obstinate Catarrhal Affections of the Throat. The small amount of iron which they contain renders them very useful in the early stage of Throat Consumption, and they do good in nearly all cases of relaxation of the mucous membrane. The Soden Mineral Pastilles offer a most convenient method of using the Waters, producing both a Local and General effect. They are especially beneficial in Catarrhal Diseases of the air passages. I frequently found them of great service in the case of Singers and Public Speakers. (Signed)

MORELL MACKENZIE, M.D., LONDON.

WHOLESALE, 10s. 6d. NETT PER DOZ.; RETAIL PRICE, 1s. 1½d. PER BOX.

CAUTION.—See that each box has Dr. W. Stoeltzing's Signature, and our Trade Mark (two Globes with Cross and Crescent), which is impressed on each Pastille; none others are genuine.

THE SODEN MINERAL PRODUCE CO., 10 DYER'S BUILDINGS, **LONDON, E.C.**
HOLBORN,

Any Chemist supplying to us will be supplied gratis with Counter Bills, size about 11x9, printed on one side only; also with Transparent Showcards for the window.

DOULTON & CO., LAMBETH, LONDON, S.E.

MANUFACTURERS OF EVERY DESCRIPTION OF

WATER FILTERS.

NEW PATENT

Manganous Carbon FILTERS.
Boudoir and Table FILTERS.
Pocket and Syphon FILTERS.

House Supply or Cistern FILTERS.
Patent Granular Charcoal FILTERS.
Refrigerator FILTERS.

MAIN SERVICE FILTERS

FOR INTERMITTENT OR CONSTANT SUPPLY.

See Reports, Analyses, &c. Detailed Lists on application.
To be obtained of all Dealers.

DOULTON & CO., LAMBETH, LONDON, S.E.

NOTES:—100 Soho Street, LIVERPOOL; Granville Wharf, BIRMINGHAM; and 6 Rue de Paradis, PARIS.

POINADE BOTTLES

PUFF BOXES

For quotations of all descriptions see Druggists' Sundries List of undersigned.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, 60 Bartholomew Close.
EVANS, SONS & MASON, LIM.
Montreal, Toronto; and Victoria,
British Columbia.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, 60 Bartholomew Close.
EVANS, SONS & MASON, LIM.
Montreal, Toronto; and Victoria,
British Columbia.

"RAMORNE."

LIEBIG'S

Extract of Meat.

As supplied to the War Office.

7-lb. Tins	per lb.	5/11	each	41/5	4-oz. Jars	per lb.	6/7	per doz.	19/6
1-lb. Jars	"	6/2	per doz.	74/0	2-oz. Jars	"	7/0	"	10/6
4-lb. Jars	"	6/4	"	38/0	1-oz. Jars	"	7/8	"	5/9

Write for Detailed Price List to the Australian Meat Co., 9 and 11 Fenchurch Avenue, E.C.

6 lbs. Carriage Free.

CHEMISTS, PLEASE NOTE!

TOMLINSON & HAYWARD,

**MANUFACTURING AGRICULTURAL CHEMISTS,
LINCOLN.**

ESTABLISHED 45 YEARS.

Makers and Proprietors of the following well-known Agricultural Preparations, &c.—

HAYWARD'S POWDER, SHEEP DIP.

HAYWARD'S FOOT ROT PASTE.

GLYCERINE SHEEP DIP (Non-poisonous).

ARSENICAL PASTE DIP.

TOMLINSON & CO.'S BUTTER POWDER.

TOMLINSON & CO.'S BUTTER COLOUR.

LUDDINGTON'S OILS. (The Original Driffeld Oils.)

LIQUID CARBOLIC ACID, in Bottles, &c.

CARBOLIC POWDER, in Bulk, &c.

PATENT ARM AND AXLE GREASE,

In Self-opening Tins and in Bulk.

CHEMISTS' OWN FORMULAS FOR SHEEP DIP, ETC.

Carefully made up on advantageous terms.

All our preparations will be found very profitable; they are manufactured under the care of a competent Analytical Chemist, ensuring uniformity and correctness, which enables Retailers to recommend them with confidence.

NOTE!—To enable Chemists to meet unfair competition we put up several of our preparations either with **plain Labels**, our names not appearing on them, or with Chemist's name thereon, as his own preparation, or we supply the same preparations in Bulk, together with Labels.

PRICES, ETC., ON APPLICATION.

Liberal supplies of Bills, Cards, &c., with orders.

TELEGRAPHIC ADDRESS:—"TOMLINSON LINCOLN."

Tophone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE—The Folios shown in this Index are those at the FOOT of the Page, and NOT at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of page	Foot of page	Foot of page
AI BRA MENTHOL CONES Menthol in Variety 40, 41	FELTOL & SONS Cold Liver Oil 39	NATALI E. ....Shop Fitter 114
ADAMS Herb Beer Extracts 39	FELTON, GRIMWADE & CO. Wholesale Druggists 69	NEWBAILL & NASON Herb Beer 34
ALLEN HANBURY Cold Liver Oil 39	FERRIS & CO. Nepenthe 63	NEWBERRY & SONS Catalogue 33
APOLLINARIS CO. Apollinaris, COVER, Hungary Jan Water 37, Apollinaris Water 37	FINK, F. & CO. Glycerins, Gums, &c. 117	NEW CARBOLIC SANITARY CO. Healthies 117
ARMISTEAD, NELSON & CO. Cocoa Butter 75	FORD, SHAPLAND & CO. French Hygienic 117	NEWSOME, C. ....Surgons' List 93
ASSISTANTS WANTED AND WANTING SITUATIONS Coloured Supplement	FRIEDLANDER, A. ....Coca Tobacco & Cigarettes 47	OAKEY & SONS Wellington Knife Polish 43
ATKINS, J. & CO. ....High-class Perfumery 45	GIBSON, R., & SONS Lozenges Compressed Tablets, Jujuhes, &c. 103	OLDFIELD, PATRICK & CO. Wholesale & Export Druggists, Butter Colouring 3
AUSTRIAN DRUG CO. ....Extract of Meat 37	GOODALL, BACKHOUSE & CO. Household Specialties 29	ORME & CO. ....Scientific Apparatus 13
AUSTRIAN MEAT CO. ....Extract of Meat 37	GRINDLEY & CO. ....Petroleum Jelly 117	ORRIDGE & CO. ....Transfer Agents, Coloured Supp.
AYRTON, SAUNDERS Funnels 106	GT. TOWER ST. TEA CO. ....Injection 22	OSCAR SUTTON & CO. ....OS Tooth Block 43
BAILY, "A Physician's Pharmacopoeia" 15	HARGREAVES, M. K. ....Books 15	PETERSON, M., & CO. ....Sponge Importers 119
BANNER, R. ....East India Mustard Seed Oil 68	HARSTON & CO. ....Export Druggists 92	PHILLIPS, GEO., & CO. ....Pure Spirits, &c. 82
BARNETT & CO. ....Marking Ink 34	HARVEY, J. W., & CO. ....Methylated Spirits 115	PINDER, J. W. ....Pill Machine and Coiler 102
BARNES & FOSTER London-made Syphon Bottle 31	HAYNES, G., & CO. ....Absorbent Cotton Wool 117	POCOCK, KEEVIL & CO. Patent Thermo Feeding Bottle, Coloured Supp.
BARRE, R. H. ....The Heart Scent Bottle 96, 114	HAY, W. ....Hop Ale Essence 35	POLLARD, A. W. ....Rubber Stamp 16
BATES, W. ....Fennel Kilder 43	HAYWOOD, J. H. ....Surgical Appliances 98	POTTER & CLARKE Herb Beer Extract 39
BATTLI, R. ....Fennel Kilder 43	HEARN, E. A., & CO. ....Wash Smelling-salt Bottle 91	PRONK, DAVIS & CO. ....Aniline Dyes 115
BAUM, TNER, J. F., & CO. ....La Brulante 117	HEERTZ & COLLINGWOOD Jensen's Cod Liver Oil 62	RAIT, GEO. L., F.C.S. ....Analytical 117
BEECH, T. ....Pills 82	HESELTINE, WM., & SON Premier Tea of India and Ceylon 23	RAPHAEL, J., & CO. ....Seals 13
BEDDIZ & CO. ....Blood Mixture 93	HEWLETT & SONS Liq. Sanna, &c., & Bisnuth, Peppin, Mit. 61	RATTI, S., & CO. ....Methylated 117
BELL, C. & SONS Dyeing & Tissue Printing 15	HILL, A. S., & SONS Wholesale & Export Druggists 92	RENSHAW, H. ....Indiarubber Tyre 116
BENNE & JENNER Chemicals 117	HOCKIN, WILSON & CO. ....Menthol Cones 50	RICHTER, D. R. ....Pain Expeller, TEXT 33
BIRLEY, Agents Wanted Coloured Supplement	HOLLOWAY, PROFESSOR Pill, and Ointment 82	ROBERTSON, J. & CO. ....Gelatine Pill Coating Machine 116
BISHOP, "SONS Granular Effervescent Preparations 39	HOOPER & CO. ...."Carnaby" Registered COVER	ROBBINS, J., & CO. ....Methuene 80
BLYTOFF, BAGE, & SON Medicated Lozenges 16	HOP BITEES CO. ....Notice to the Trade 91	ROBINSON, B. ....Pharmaceutical & Err. Wine 70
BOLE, H. L. MILL CO. ....Banjoes 117	HORN & SON, SONS Patents and Trade Marks 116	ROBINSON, G. H. ....Practical Trade Receipts 15
BOWLER, SONS Printing 99	HOVENDES & SONS Lloyd's Excess 42	ROBINSON & SONS List 101, Boxes 101
BOWLE & GOVIER The Chemist Dispensing Counter 114	HOWARDS & SONS Fluid Extracts, Quinine, Cinchon, &c. 63	ROCK, T. TOMIST & CO. ....Wholesale Druggists 69
BRACH & CO. ....Still 24	HOWLETT, S. ....Shop Fitter 114	ROYAL PERFUMERY CO. Edelweiss—New Registered Perfume 125
BRAMWILL, E., & SON Epsom Salts 116	HUNYAD, JANOS Waters 27	SAINSBURY, S. ....Lavender Water 117
BRANT, J. ....Beef Tea, Soups, &c. 24	HUTCHINSON & CO. ....Surgical, &c. 107	SANGER, J., & SONS Price Current and Bronchitis Kettle 32
BRATBACH, HINCHLIFE Aerated-water Machinery 33	IDRIS & CO. ....Aerated Waters, &c. 37	SANITARY WOOD WOOL CO. Hartman's Wood Wool Dispers 103
BRINJE & GOODWIN Machinery 103	ISAACS & CO. ....Bottles 94	SANITAS, THE CO. (LIM.) ....TEXT 33, 13
BRITIS HYGIENIC CO. Soap, Perfumery, &c. 46	JAMES, DR. PROSSER Guide to the New B.P. 15	SANFORD & SON Vermiculi 118
BROOK, EEL & CO. ....Collapsible Tubes 41	JAMES, W. H. ....Horse Blister 118	SANTER, J. W. ....Private Toilet 116
BRUM, SONS Quinine 86	JEWISBURY & BROWN Oriental Tooth Paste 118	SEABURY & JOHNSON Alcohol Cotton Lint & Gauze 121
BURGE, E. ....Meth. Spirits and Naphtha 15	JOHANNIS NATURAL MINERAL WATER CO. 62	SELF-OPENING TIN BOX CO. ....Boxes 110
BURRO HS, J. ....Meth. Spirits and Naphtha 15	JOHNSON, H. ....An Epitome of Law and Practice 62	SHARLAND & CO. ....Foreign Chemists 69
BURRO HS, WELLCOME & CO. Kepler Solution 52	JOHNSON, J. H., & S. East India Oil of Mustard Seed 110	SHERLOCK BROS. ....Sundries 41
Antifer Crystal 62, The Progress of Pharmacy	KEARLEY & TONGE Mitre Tea 25	SHUPCOFF & CO. ....Oils of Rose 46
Essential Oil, Soluble Essences 36	KEENE & ASHWELL Homoeopathic Pharmacopoeia 15	SHIRLEY, A. W. ....Menthol Cones, &c. 41
BUSH, "J. & CO. ....Soda, &c. 58, 59, 60	KEITIL B. & CO. ....American Concentrated Medicines 66	SLACK & BROWNLOW Filters Text 33, 33
BUSINESSES FOR DISPOSAL. ....Coloured Supp.	KEMPTHORNE, PROSSER & CO. ....Wholesale Druggists 70	SMITH, STEPHEN, & CO. ....Spirits 115
BYGRA, J. & W. ....Shop Fitters 96	KENNEDY, THE CO. (LIM.) Seven Seals, The Pain Cure 41	SMITH, T. H., & CO. ....Alvin 78
CADBU BROS. ....Cocoa Essence. COVER	KERFOOT, T. Confectionery & Sugar Coated Pills 48, 49	SODEN MINERAL, PRODUCE CO. ....Pastilles 27
CAPPELW, B. ....Crimidine 117	KILNER BROS. Feeding and Dispensing Bottles 15	SOUL, W. H., & CO. ....Foreign Agency 69
CARTE, H. W., & CO. Soluble Essences. TEXT 35	KIMPTON, B. ....Books 15	SOUTHALL BROS. & BARCLAY At Cold Liver Oil, Sanitary Towels, Accident
CASE, J. ....Ceylon Tea 58	KING, F., & CO. ....Edwards' Desiccated Soap 78	Cases for Domestic Use 77
CASSELL, H. & CO. ....Ceylon Tea 58	KUHN, B. ....Papain Emulser (Salol) 78	SPIROUSE CO. (LIM.) ....Churchill's Invalant 105
CAVE, INSON & CO. Spring Blossom Ceylon Tea 21	LALOR, DR. ....Phosphodyne 90	SPRATLEY, PATENT (LIM.) ....Dog Malters 119
CHRIST, CARLOS J., & CIA. General Commission Agents 66	LENNON, B. G., & CO. ....Draughts 70	STEINER & CO. ....Photo-thr. Paste, Vermiculi 118
CHURCHILL, J. & A. A Physician's Pharmacopoeia 15	LEVERMORE, A., & CO. ....Precipitated Chalk 17	STEVENSON & HOWELL Soluble Essence of Jamaica Ginger, Oil of Lemn 5
CLARK, "J. & CO. ....Syphon Gas Heating Stoves 113	LEWIS, H. ....Extra Pharmacopoeia 15	STERN, G. & G. ....Painline 73, 73
CLARK, S. ....Nursery Lamp Food Water 113	LIEBIG'S WINE CO. Extract of Meat and Malt Wine 84	STEWART, G., & CO. ....Sealing Wax 110
CLARK & CO. ....Oil of Peppermint 66	LIVERPOOL PATENT LINT CO. ....Lint 100	STOCKER, F. & CO. ....Horse Draw for the Gun 115
COCKE, T. ....Porcelain Jackets and Spinto 92	LIVERPOOL SCHOOL OF PHARMACY 11	STUMER, R., & CO. ...."Alpha" Syringe Cover
COLEMAN, J. & CO. ....Menthol 58	LLOYD, A. S. ....Excess 43	SUTTON, F., & CO. ....Norfolk Condition Drenches 11
COLEMAN, J. & CO. ....Menthol 58	LOUISE, F. PROF. ....LONDON HOMOEOPATHIC HOSPITAL AND MEDICAL SCHOOL 14	SWANN, H. H. ....Syrup of Hypophosphites, &c. 65
COLGAS & CO. Vegetable Extract of Meat and Malt Wine 84	LONGMANS, GREEN & CO. Text Book of Organic Materia Medica 15	SWIFT SPECIFIC CO., THE Vegetable Blood Purifier 62
COLLIER & CO. Canniers Bouquet Perfume and Soap 61	LORIMER & CO. Citrate of Magnesia and Cod Liver Oil 57	TAUNUS SPRING NATURAL MINERAL WATER CO. (LIM.) 33
COLLIER & HARDING Oils, Paints, &c. 92	LYNCH & CO. ....Enemas COVER	TAYLOR, T. & F. J. ....Aerated Waters 38
CONGR, J. T. ....Balsamic Elixir 71	MACFARLAN, J. F., & CO. Morphia and its Salts 78	THOMAS, WAKELAM & CO. ....Chlorodyne 115
CORSA, J. R. ....Engraved Window Tablets 94	MACK, H. ....Pasta Muck 78	THOMPSON & CAPPER, Homoeopathic Medicines 93
CRESS, L. BROS. ....Sponges 10, 11	MAGNAIR, J. & D. & CO. ....Methylated Spirits 116	THOMPSON, H. A., & SON, Wholesale Druggists 80
CRESS, L. R., & CO. (LIM.) ....Sponges 10, 11	MALDON SEA SALT CO. MANCHESTER COLLEGE OF PHARMACY 14	THOMPSON, MILLARD & CO. (LIM.) Catalogue 107
CROFT, E. Y. T. ....Starch Glaze 116	MATTISON RUBBER CO. ....Syringes, &c. 51	TODD, A. M. ....Crystal Oil of Peppermint 66
CROUCH, B. ....Damiana Waters 90	MAW, S. SON, & THOMPSON Cautin 67, Lint 99, Quarterly Price Current 109	TOMLINSON & HAYWARD Veterinary and Butcher Colours 28
CROW, PERFUMERY CO. Finest English Perfumery 26	MAWSON, SWAN & WEDDELL Filters 16	TOMLINSON, T., & SONS, Valuers, Coloured Supp. 100
DARTO, F. & CO. ....Spectacles 17	MAY & BAKER Phenacetine, COVER 8	TOOGOOD, W. ....Evening ne Covered Pops and Patent Pill Coiler 97
DA SILVA, J. T. ....Dr. Locock's Wafers 116	MAY, ROBERTS & CO. ....Hooper's Pills, 8	TOWLE, A. P., & SON Chlorodyne 81
DAVID, J. T. ....Chlorodyne 76	McKESSON & ROBBINS Ovoid Capsuled Pills 85	TOWNSEND, J. ....Handblows 16
DAY & SONS Horse and Cattle Medicines 119	MELIN, C. Canselling Machine 109, and Octagonal Syphon 34	TRATT, R. C. ....Perfumes 46
DAY & HEWITT Cattle Medicine Chests 119	MERCES, L. ....Amulet 93	TYRKE & KING Acids, Chemicals, &c. 47
DE PA & CO. ....Medicinal Amules 80	METZ, PAUL Willow Boxes 117	TYRER, P. ....Essence of Anchovies, Boro' Ketchup 21
DE ST ALMAS Petrolina—Peach Blossom 51	MIDDLETON, KIRKPATRICK & BARR Tartaric Acid, Chemicals, &c. 86	VACCINE ASSOCIATION Pure Lymph 105
DINWIDDY & CO. ....Flour Plasters 98	MORRIS & CALLARD Chemicals 86	VAN HOUTEN & CO. ....Rubber Stamps 119
DODD, DR. ....Rocks 16	MORRIS, G. Confectioners' Colours 115	VAN HOUTEN'S COCOA 63
DOUG, J. ....Filters 27	MORTIMERHEAD & CO. ....Benger's Food 83	WARREN, A. & J. ....Stoddard's Sea Salts 96
DUNC, FLOCHARTS for Toilet Fictures 42	MUMFORD, G. S. ....Pure Crushed Linseed. TEXT 33	WARRICK BROS. ....Heliotrope Pastilles & Raw Materials for Perfumery 67
DUNC, MITCHELL & CO. ....Chlorophyll 91	MUNDAY, I. ....Injection Day 90	"W" BRAND BOTTLES 94
DUNC, MITCHELL & CO. ....Bottles 94		WELLS, G. A Specific Di case, A Cause of Baldness 15
DURR, GEORGE Perfume 116		WENHAM, THE CO. ....Fertilizing Lamps. TEXT 35
EDINBURGH CLASSES ELLIS, SONS, & CO. ....Embrocation. TEXT 34		WERNER & FLEIDERER Machinery 109
ESCH, N. BROS. & WALSH Soft Flexible Catheter 117		WESTMINSTER COLLEGE (Wills & Wootton) 14
EVANS, L. ....Homoeopathic Medicines 82		WHITAKER & GROSSMITH The New Perfume 11
EVANS, SONS & CO. (Liverpool) Oloris 80, Solenocytes 39, Dressing Combs 110, Hair 18, Ear Springs 105, Trusses 65, Drug 96, Sundries 25, Enemas 20, Menthol Cones 12, Pliers 90, Feeding Bottles 36, Pomade Bottle 27, Requisite 98, Perfumery 45, Toilet 38, 83, Elastic Hose 19, Puff Boxes 37, Syges 36, Tooth Brushes 29, Pill Boxes 20, 21		WILSON, W. ....Toothache Pellets 117
EXCHANGE COLUMN 94		WOODHALL SPA TEXT 33
		WOOD, VINCENT Chest Protectors 104
		WOOLLEY, SONS & CO. Wholesale & Export Druggists 83
		WYLETS & CO. ....Wholesale Druggists, &c. 83
		ZIMMERMANN, A. & M. Pure Chemicals, & Quintine 79

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear are published in one of the other issues of this month.

ACETIC ACID

Dunn and Co.
Morris and Callard (Salts)

AERATED AND
MINERAL WTS

Adams, B.
Apollinaris (Hunyadi, Fried-
richshall and Apollinaris)
Barnett and Foster
Carter, H. W., & Co. (Ginger
Ale Essence)
Chemists' Aerated Waters
Association
Christie, Geo., & Co.
Ellis (Ruthin)
Evans, Sons and Co.
Harston and Co.
Hay, W.
Hassall and Co. (Citric Acid
Phospho)

Hill, A. S., and Sons
Hunyadi Janos
Idris and Co.
Ingram and Royle
Jewsbury and Herwin
Johannis Mineral Water Co.
(Lim.)

Mills and Co. (Bonne)
Tannus Spring Natural Mineral
Water Co.
Taylor, T., and F. J.
Woodhall Spa
(See GINGER ALE)

DITTO PLANT

[See SYMPHONS AND ESSENCES.]
Barnett and Foster
Brady and Hinchliffe
Bush, W. J., and Co. (Foam
Producer, &c.)
Evarger, H.
Guerey Freres
Tyler, Hayward, and Co.

AGENCIES

Haydon's Chemists Defence

AGENCIES ABROAD

Appleby and Halse
Australian Drug Co.
Campbell, N. S., and Co.
Christie, Carlos, J., and Cia
Cocking (Japan)
Evans, Sons and Mason (Lim.)
(Canada)
Felton (Melbourne)
Kugera (New York)
Kempthorne (New Zealand)
Macnaughton, F. J.
Prosser, E., and Co. (Sdny)
Roberts (Paris, &c.)
Rocke (Melbourne)
Shearland & Co. (Auckland, N.Z.)
Soul, W. H., and Co.
Stallman and Fulton

ALKALOIDS

Howards and Sons (Cinchona)
Smith, T., and H.

ALMILAJ

Merces, L.

AMMONIA

May and Baker
White, A., and Sons

ANALYSIS

Rait, G. L. F., C.S.

APPARATUS

Bracher & Co. (Automatic
Distilling)
Brinley and Goodwin
Clarke, S. Food Warmer)
Friedlander, A.
Hughes, C. (Dissolving Views)
May, Roberts (Water-bath)
Orme (Scientific)
Perken, Son and Rayment
(Scientific)
Rogers, P., and Co.
Rothermel, Paul (Vinegar)

BANDAGES

Bailey, W. H., and Son
Bole Hall Mill Co.
Robinson and Sons

BATH GLOVES

Maw, Son and Thompson
Sherlock Bros.

BEESWAX & HONEY

Bowdler and Co.

BICARB. SODA

Gaskell, Deacon and Co.
Howards & Sons
May and Baker

BISMUTH, PREP.

Burroughs, Wellcome and Co.
Heaton, Squire and Francis
Hewlett and Sons
Howards and Sons
May and Baker
Symes and Co.

BLOOD MIXTURE

Beedler, J., and Co.
Lincoln and Midland Counties
Drug Co.

BOOKS

Baily, J.
Bell, G., and Sons
Churchill, J., and A.
Congreve, G. T. (On Consump-
tion)
Dobell, Dr.
Jawne, Dr. Prosser
Johnson, J., and J. H.
Keene and Ashwell
Kimpton, R.
Lewis, H. K.
Loisette, Professor
Longman, Green and Co.
Rushaw, H.
Robinson, G. H.
Wells, G.

BOTANIC BEER

Newball and Mason

BOXES

Austin and Co. (Cardboard)
Evans, Sons and Co. (Pill and
Puff)
Iron and Sellers
Metz, Paul (Willow)
Self-Opening Tin Box Co.

BOTTLES

Barnett, R. H.
Barnett and Foster
Brady and Hinchliffe
Brett's (Lim.)
Brooks, Peel Perfumers
Curle, J. A.
Dunlop, Mitchell and Co.
(Tubes)
Evans, Sons and Co. (Smelling,
Pomade, and Feeding)
Hearn, E. A., and Co.
Isaacs and Co.
Kilner Bros.
Lang, J., and Co.
Maw, Son and Thompson
Poths
Tinsord
"W" Brand

BRUSHES

Dukas and Co.
Evans, Sons and Co. (Tooth
and Hair)
Sherlock Bros.
Sutton, O., and Co. (Tooth)

BUTTER COLR. &c.

Bush, W., and Son (Mari-
goldine)
Johnsen and Jorgensen
Oldfield, Pattison and Co.
Tomlinson and Hayward

CAMPHOR

Howards and Sons
Keene and Ashwell (Homeo-
May and Baker (F. pathic)
Maw, Son and Thompson
Murray, Sir James (and)

CAPSULES

JAPSULES
Denoual, J. (Medicinal)
Duncan, Flockhart and Co.
(Cascara Sagrada)
Durant, F., and Co.
Evans, Sons and Co.
Hooper, B., and Co.
Maw, Son and Thompson

CAPSULES (ME-
TALLIC)

Betts and Co.
Melin, C. (Machine)

CARMINE

Bush, W. J., and Co.
Sillers

CATALOGUE

Evans, Sons and Co. (Price
Current)
Maw, S., Son and Thompson
(Price Current)
Newbery and Sons
Sanzer and Son
Thompson, Millard and Co.

CHEMICALS

Bennett and Jenner
Bousa, W., Son and Co.
Dunn and Co.
Fletcher, Fletcher & Stevenson
Gaskell, Deacon and Co. (Bi-
carbonate of Soda)
Hill, A. S., and Son
Howards and Sons Pharma-
ceutical)
Kuhn, B.
Levermore, Aug., and Co.
May and Baker
Middleton, Kirkpatrick and
Barr
Morris, Callard, and Co.
Oscar Andrea and Co.
Prunk, Davis and Co.
Stern, G., and G. (Pumiline)
Summer, R., and Co.
Smith, T., and H., and Co.
Tyke and King
White, A., and Sons
Zimmermann, A. and M.

CHALK PRECIP.

Dunn and Co.
Levermore, Aug., and Co.
White, A., and Sons

CHEST PROTECTRS

Maw, Son and Thompson
Wood, V.

CHLORATE OF
POTASH

(Compressed Tablets)
Burroughs, Wellcome and Co.
Hooper, B., and Co.

CHLORIDE OF GOLD

Oscar Andrea and Co.
Rowland, L.

CHLORIDE OF LIME

Government Sanitary Co.
National Chemical Co.
New Carbolic Sanitary Co., Ltd.

CHLORODYNE

Blyton-Bage and Co. (Twam
low's)
Burroughs, Wellcome and Co.
Duncan, Flockhart and Co.
Freeman, R.
Thomas, Wakeham and Co.
Towler, A. P.

CHLOROFORM, &c.

Duncan, Flockhart
Macfarlan, J. F.
Smith, T., and H.
Zimmermann

CIGARETTES

Evans, Sons and Co.
French Hygienic Co. (Coca)

CITRIC ACID

Hassall (Phospho)
Nascio, Aveline and Co.

COCAINE

HYDROCHLOR

Howards and Sons

COCA WINE

Armbricht, Nelson and Co.
Evans, Sons and Co. (Ciga-
rettes and Tobacco)
French Hygienic Co.

COCOA & CHOCOLTE

Cadbury
Fry (Maltd)
Van Houten's Cocoa

COD-LIVER OIL

Allen and Hanbury's
Burgoyne (Pentelaine)
Burroughs, Wellcome
Evans, Sons and Co.
Hertz & Collingwood (Jensen's)
Hill, A. S., and Son
Lorimer and Co.
Smith, T. J.
Southall Bros. and Barclay
(A. I.)
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE

Aymington and Co. (Coffee
Essence)

COLLAPSIBLE
TUBES

Betts and Co.
Brook, H., Peel and Co.

COMBS

Evans, Sons and Co.
Sherlock Bros.

COMPOSITION

ESSENCE
Potter and Clarke

COMBINED MDCNS

Allen and Hanbury's
Burroughs, Wellcome and Co.
Hooper, B., and Co.

CONCENTRATED
LIQUORS

Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Keith, B., and Co.
Thompson, H. A., and Son

CONFECTIONERY

Bage, Blyton and Co.
Gibson, R., and Sons
Kerfoot, T.
Morris, C. (Colours)
Soden Mineral Pastilles
Warrick Brothers

CORN CURES

Maw, Son and Thompson
Robinson, B.

COTTON WOOL

Haynes G., & Co. (Absorbent)
Maw, Son and Thompson
Robinson and Sons (Absorbent)
Sanzer, J., and Sons
Seabury and Johnson

DENTIFRICES

British Hygienic Co.
Jewsbury and Brown
Newbery and Sons
Sutton, O., and Co.
Thompson and Capper
Woods, W. (Acrea Nn's)

DISINFECTANTS

Government Sanitary Co.
National Chemical Co.
New Carbolic Sanitary Co., Ltd.
Sanitas Co.

DOG MEDICINES

Spratts (Patent)

DRUGGISTS' SUN.

Ayrton and Saunders
Evans, Lescher and Webb
(Hawley's Counters Adjuncts)
Evans, Sons (Savers)

Hill, A. S., & Son
Idris and Co.
Lynch and Co.
May, Roberts and Co.
Newbery, F., and Sons
Sanger and Sons
Schultz and Co.
Sherlock Bros.
Soul, W. H., and Co.
Thompson, Millard and Co.
Tinsord, W.

Wood, Vincent

DRUMS, CANS, &c.

Noakes and Co.

DYES

Ayrton and Saunders
Prunk, Davis and Co.

EFFERVESCENT

Allen and Hanbury's (Saline)
Bi-hop, A., and Sons
Curtis and Co.
Evans, Sons and Co.

ELECTRIC APPAR.

Colthure & Harding (Electric
Light Oil)
Darton, F., and Co.
Friedlander, A.
Orme and Co.

EMBOCATION

Clark, W.
Killman, Sons and Co.
Kennedy Co. (Limtd) (Seven
Seals)

ENEMAS

De Pass & Co.
Evans, Sons and Co.
Lynch and Co.

Maw, Son and Thompson
Sanger and Son

ENGRAVERS

Barker, W., and Son

ESSENCES, FRUIT
AND SOLUBLE

Brady and Hinchliffe
Burgoyne, Burdidge and Co.
Bush, W. J., and Co.
Bush, W., Son and Co.
Carter, H. W., and Co.
Hay, W.
Idris and Co.
Lorimer and Co.
May and Baker
Oldfield, Pattison and Co.
Stevenson and Howell
Tyke and King
Tyler, P. (Anchovies)
Vogt, G.
Woolley, Sons and Co.

ESSENTIAL OILS

Bush, W., Son and Co.
Bush, W. J. (Lemon &c.
Cocking (Japan Peppermint)
Evans, Sons and Co.
Jackson, J., and Co.
May and Baker
Nascio, Aveline and Co.
Rocke, Tompsett and Co. (Egypt)
Stallman and Fulton
Stevenson and Howell
Symes and Co.
Todd, A. M.
Vogt, G.
Warrick Brothers
Wright, Layman and Umney

ETHER

Duncan, Flockhart and Co.
(Chloric)
Howards and Son
May and Baker
Robbin's
White, A., and Sons

EXTRACT, MEAT

Australian Meat Co.
Brann and Co.
Coleman and Co.
Liebig Co.
Liebig's Wine Co.
Viking Food and Essence Co.

EUCALINUM

Rocke, Tompsett and Co. (Anti-
septic Poultice and Vinegar)

EXTRACTS, FLUID

Allen and Hanbury
Barber, G., and Co.
Burgoyne, Burdidge
Evans, Sons & Co.
Fletcher, Fletcher & Co.
Heaton, Squire and Francis
Oldfield, Pattison and Co.
Potter and Clarke

FEEDING BNS.

Hearn, E. A., and Co.
Kilner Bros.
Maw, Son and Thompson
May Roberts and Co.
Pocock, Keeliv and Co.
Savers

FILLING

Thompson, Millard
Toozood, W.

FLY PAPERS

Doulton and Co.
Mawson Swan, and Co.
Slack & Browlow
Silicated Crin Filtr Co.

FOAM PRODUCERS

Bush, W. J., and Co.

FOOD WARMERS

Clarke, S.

FOOD (Infants &c.)

Allen and Hanbury
Benger's Pancreatic
Brand and Co.
Burroughs, Wellcome
Goodall, Backhouse Co.
Heaton, Squire (Malt)
International Patent
Food (Dr. Mell's Lacta-
Kinze, F., and Co. (Lacta-
Soup)

Lazenby, E., and Son
Mottershead and Co. (Lacta-
Food)

GINGER ALE

Adams, B.
Harston and Co.
Hay, W. (Essence)
Mills, R. M.

GLYCERINE

Fink
Martindale, W. (Nitro-
glycerine Tablets)
Maw, Son and Thom-
pson
Price's Candie Co.

GRANULAR DEP.

Bishop, A., and Sons
Burroughs, Wellcome and Co.
Bush, W., and Co.
Curtis and Co.
Evans, Sons and Co.
Heaton, Squire and Co.
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Co.

GUTTAPERCHI

Duncan, Flockhart

HAIR PREP.

Bates, F. W. (Friszel)
Brodie, J. (Imperial)
Capper, W. B. (Crul)
Cheesbrough, Mufc &
French Hygienic Co.
Royal Perfumery Co.

HERB BEER TS.

Adams, B.
Newball and Mason
Potter and Clarke

HERBALISTS

Adams, B.
Newball & Mason (Ext. herbs)
Potter and Clarke

HOMOEOPATH

Epps and Co.
Euse and Ashwell
Leath and Ross
Thompson and Capper

HOP ALE ESSENCE

Hay, W.

HOSPITALS

London Homoeopathic

HYPOPHOSPHES

Duncan, Flockhart and Co.
Dunn and Co.
Fellows
Fletcher, Fletcher & Co.
Rymes & Co.
Swann, H. H.
Tyke and King
Yeatman, F. J.

INK MARKING.

Bewell and Draper
Dunlop Floekhart

INKS.

Maw, Son and Thompson
Toson, W.

INSIDICIDES

Evans and Co.
Bank
Stein and Co.

KETCHUP

Tyler.

LAMPS, LIGHTS, & C.

Clark and Co. ("Fairy")
Friedrich, A.
(Indescent and Electric)
Went Co., The, Lim.

LAR

Ewen.

LEESIES

Fitch and Nottingham
Foster and Clark

LIM JUICE

Felton and Sons (Specialist)
Idris I Co.

LINED

Idris I Co.
Mum I, G. S.
Neil, J.

LIN

Laver, J. Lint Co.
Maw, Son and Thompson
Newell (Surgons)
Roberts and Sons
Seah and Johnson

LOZIGES

Allen and Hanbury
Blythe and Co. (Medicated)
Evans and Co.
Gins, R., and Sons (Manfrs.)
Hill I, Soa
Kerf, J.
Lair and Co.
Marble, W. (Nitro-Glyce-
rineable)
Went, Brothers (Heliotrope
Pastes)

LOOAH

May, berts and Co.

MACINERY

Brace and Co.
Brins and Goodwin
Burroughs, Wellcome and Co.
Carte, H.
Dale, and Son
Mellin, (Capsuling)
Went and Pfeiderer

MAC C LANTRNS

Hugh C.
Perk and Son and Rayment

MAIESIA

Bish, A., and Sons
Bushin and Co.
Curt and Co.
Dunn, R. and H. (Galeinad)
Lorin and Co. (Citrate)
Murr James (Fruit)
Oscar and Co.

MAJ EXT., ETC

Allen and Hanbury
Burroughs, Wellcome and Co.
(McExtract "Kepler")
Eckel
Hock, Squire and Francis
Light Wine Co.
Lorin, and Co.
Paten's Chemical Manu-
facturing Co.

MEIHEOL

A. I. Anthol Depot, A. W.
Shir, Proprietor
Bean, E. R.
Briti Hygienic Co.
Castell and Co.
Cock, and Co.
Evan Sons and Co.
Hock Wilson and Co.
Maw and Thompson
Newly and Son
Shir
Tock, A. M. (Crystal Oil of
Peppermint)

MAKING INKS

Barb, G., and Co. (Crimson)
Chir, D. J.
Hickon, J.

MELICINE CHSTS

Burroughs, Wellcome and Co.
Day, and Hewitt (Veterin.)
Day I Sons

MELIURALS

Bell, J., and Co.
Howe, and Sons
May I Baker

METIYLATED

SIRTS

Burgh, J.
Har, J., & W., and Co.
Jom, J. C.
Mac, J., & D.
Phill, G., and Co.

MEYIENE

Rob, S. J., and Co.

MICROSCOPES

Darton, F., and Co.
Perken, Son and Rayment

MIXING MCHNRY

Bracher and Co.
Brins and Goodwin
Burroughs, Wellcome and Co.
Carter, J. H.
Sherwin, G. E.
Werner and Pfeiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

MUSTARD

Banner, E. R. (Oil)
Johnson, J. H. and S. (Ess. Oil)

NEPE THE

Ferris and Co.

NIGHT LIGHTS, & C

Clarke, S.

OILS, PAINTS, & C

Bingham Oil Refining Co
Colthart and Hardline
Gregory, W. (Devonshire Oils
Frank, Davis and Co.
Vogler, The Charles A., Co
(St. Jacob's Oil)

OINTMENT BASES

Bingham Oil Refining Co
Cheesebrough (Vaseline)
De Pass, E. A., & Co. (Petrolin)
Grindley (Petroleum Jelly)

OPTICIANS

Darton, F., and Co.
Hughes, W. C.
Perken, Son and Rayment
Raphael, J., and Co.

PAINTS ORLS

Papain (Finkler)
Kuhn, B.

PARALDEHYDE

Zimmerman, A., and M.

PATENT AGENTS

Hora and Son

PATENT MEDCNS.

Armbricht, Nelson and Co. (Coc
Wine)
Atkinson (Infant Preserv)
Becham (Pills)
Beedler, J., and Co.
British College (Morrison's)
Burgess, E. (Lion Ointment)
Conzeve, G. T. (Balsamic
Elixir)
Crouch, F. B. (Wafers)
Edwards and Son
Evans, Lecher (Hawley's
Fanning's Powders)
Holloway (Pills and Oint.)
Hop Bitters Co.
Kemp, W. H. (Whoooline)
Lalor (Phosphoryne, & C.)
Lincoln (Clarke's Mix.)
Loock, Dr. (Wafers)
Lynch and Co.
May, Roberts and Co.
Meres, L.
Munday, J. (Injection Day)
Newbery and Sons
Powell, T. (Bum of Aniseed
Ratti and Co. (Mephrosine)
Richter, Dr. (Pain Expeller)
Roberts (Foreign)
Savars
Singleton's Eye Ointment
Soul, W. H., and Co.
St. Dalmas (Bronchial, & C.)
Swift Specific Co., The
Thomson, Millard and Co
Vogler, The Charles A., Co.
Wilson, W.
(Toothache Pellets)

PERFUMERY,

FANCY SOAPS.

(See EAU DE COLOGNE.)
Atkinson, J., and Co.
Atkinson, J. and E.
Ayer, H. H.
Biggleston, E. R.
Hickell, Turner and Co.
Briti Hygienic Co.
Burroughs, Wellcome and Co.
Cheesebrough Manufacturing Co
Crown Perfumery Co.
De Pass & Co. (Peach Blossom
Durrant, Geo.
Evans, Sons and Co.
Ewen (Soaps)
Hall's Wood Violet
Greensill, F. S., and Sons
(Mona Bouquet)
Mack, H.
Mann, C. A., and Co.
Maw, Son and Thompson
Morris, G. (Colours)
Newbery and Son
Pearl Soap (Dirty Boy)
Royal Perfumery Co.
Sainsbury, S. (Lav. Water)
Sanger and Sons
Shirley, A. W.
Stern, G. and G. (Pum'line)
Treat, K. C.
Warrick Brothers
West, T. (Okel's Moss)
Whitaker & Grossmith
Woolley, Sons and Co. (Po wde)

PEPPERMIT

Jackson, J., and Co.
Todd A. M. (Crystal White
Oil of Peppermint)

PEPSINE, & C.

Burroughs, Wellcome, and Co
Fletcher, Fletcher & Stevens
Newbery (Liquors)
Warner and Co. (Inglavin
Zimmermann

PEROX. OF HYDR.

Dunn and Co.
Kobbins

PHOTOGRAPHIC

Botwright and Grey
Howards and Son (Chemicals
Perken, Son and Rayment
Marion and Co.
May and Baker
Oscar Andree and Co.
Thomas, H. W., and Co., Lim.

PLASTERS

Burroughs, Wellcome and Co.
Evans, Sons and Co.
Mather, W.
Maw, Son and Thompson
S. Delmar, A. D.
Sapary and Johnson
Smith, W. F.

PHARM. PREPS.

Allen and Hanbury
Barron, Squire and Co.
Benger's
Blyton, Bage, and Co.
Burgess, Willows, Francis
Burgoyne, Burbridge
Burroughs, Wellcome Various
Duncan, The Khari
Evans, Sons and Co.
Ferris and Co.
Fletcher (Lqrs. for Syrups)
Hearon, Squire and Francis
Hewlett and Sons
Hill, A. S., and Son
Howards, B., and Co.
Howards and Son
Keith (Conc. Tinctures)
Kuhn, B.
May & Baker (Phenacetine)
Maudslayi (Nitro-glycerine)
Sellers, J.
Southall Bros.
Tyspe & King
Woolley, Sons
Wyleys (Various)

PILLS (Coated, & C.)

Allen and Hanbury (Schief-
felins) (Pearl Coated)
Barron, Harvey and Co.
Becham, Thomas
Briti Hygienic Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Hooper, Dr.
Kerfoot, T. (Sugar Coated)
Lorimer and Co.
McKesson and Robbins Ovoid-
Capped
Morrison and Co.
Newbery and Sons
Sanger, J., and Sons
Smith, W. F.
Southall Bros. and Barclay
Swann, H. H.
Warner, W. R. (Coated)
Wyleys and Co.

PILL MACHINES

McFerran, J. A.
Maw, Son and Thompson
Robertson, J., and Co. (Coating)
Toogood, W. (Coater)

PODOPHYLLIN, & C.

Keith, B. and Co.
Smith, T. and H.

PORCELAIN GDS.

Potbs, H., and Co.
Toogood (E.c. Pots, regist.)

PUMILINE

Burroughs, Wellcome and Co.
Stern, G. and G.

PRINTING

Bowers Bros.
Facsimile Apparatus Co.
Ford, Shapland and Co.
Silverlock, H.
Townsend, J. (Exeter)

POLISHING

Baumgartner (La Brillantine)
Bradley, Bourdas (Albatum)
Clark, W.
Oakley, John, and Sons

QUININE SALTS

Brunie, C. (Pelletier's Quinine)

RENNET

Benger's (Essence of)
Johnsen and Jorgensen

SACCHARINE

Allen and Hanbury
Burroughs, Wellcome and Co.

SALICINE

Macfarlan and Co.
Smith, T. and H., and Co.

SAUCES, PICKLES

Goodall, Backhouse and Co.
Lezenby (Havvy)
Tyler, P.

SEA SALT

The Maldon Crystal Salt Co.
Warren, A. and J. (Stoddart's
Sea Salt)

SCHOOLS OF

PHARMACY,

HOSPITALS, & C.

Edinburgh College
Liverpool School
London Homoeopathic and
Medical School
Manchester College
South London School of
Pharmacy, Lim.
The School of Pharmacy
Tully, J.
Westminster College

SEALING WAX

Stewart, G., and Co.

SILTTOGENES

Evans, Sons and Co.
Idris and Co.
May, Roberts and Co.

SHAVING

Dukas and Co. (Brushes)
Hovenden (Lux)
Lloyd, A. S. (Essence)

SMELLINGS SALTS

Shirley, A. W.

SOAP (SOFT, & C.)

Brecke, I. Turner and Sons
Briti Hygienic Co.
Cheeswick Soap Co.
De Pass and Co.
Maw, S., Son and Thompson
Morris, G. (Colours)
Pearl Soap
Stern, G. and G. (Pumilne
Toilet and Sanitary)
Whitaker and Grossmith

SHEEP DIP

Grindley and Co.
Tomlinson and Hayward

SHOP FITTERS

Bowling and Gowler
Hygrave, J. and W.
Corsan, J. R.
Evans, Sons and Co. (Show
Crystals)
Howlett, S.
Natali, E. (Show Cases)

SPECTACLES

Botwright and Grey
Darton, F., and Co.
Raphael, J., and Co.

SPIRIT

Boord and Son
Burroughs (Pure & Methyl.)
Harvey, J. W., and Co.
Jones and Mason (Methyl.)
Macnair, J. & D.
Phillips and Co.

SPONGE

Cresswell Bros.
Cresswell, R., and Co. (Lim.)
Evans, Sons and Co.
Lynch, W. A., and Co. (Bag)
Maw, Son & Thompson (Bags)
Peterson, M.
Schutze and Co.
Sherlock Bros. (Sponge Bags)

STAMPS (RUBBER)

Pollard, A. W.
Richford, E. M.
Van Houten and Co.

STOPPERS

Austin and Co. (Sprinklers
Barnett & Foster (The Eclipse
Brooks, Pee (Sprinklers)

SURGICAL

Ayrton and Saunders
Bailey, W. H., and Son
Beckley, J. T.
De Pass and Co.
Haywood, J. H.
Hutchinson, A., and Co.
Ingram and Son
Liverpool Patent Lint Co.
Marks, A. A. (Artificial Limbs)
Maw, Son and Thompson
Newcome, C.
Robinson and Sons
Schutze and Co.
Thompson, Millard and Co.
Woolley, Sons and Co.
Wood, Vincent

STARCH

Crichtley (Gloss)

STOVES

Clarke, S., & Co. (Gas Heating)

STROPHANTUS

Burroughs, Wellcome and Co

SUGAR

Albion, R., and Sons
Barnett and Foster
Idris and Co.
Kilner Bros.

SYRINGES

De Pass and Co.
Evans, Sons and Co.
Summer, R. and Co.

SYRUPS

Fletcher, Fletcher (Liquors)
Idris and Co.
Swann, H. H.

TARTARI ACID

Middleton, Kirkpatrick and
Barr

TEA

Cassell, J., & Co.
Cave, Johnson and Co.
Gt. Tower St. Tea Co.
Heseldine, Wm., and Son
Kearley and Tonge
Pearse and Wheatley
Walker and Dairymple

TELEPHONES

Friedlaender, A.

TEREBENE

Burroughs, Wellcome and Co.
Hearon, Squire and Co.

THERMOMETERS

Darton, F., and Co.
Maw, Son and Thompson
Perken, Son and Rayment
Raphael and Co.
Schutze, F. & Co.

TIN CANISTERS

Noakes, B., and Co.

TOILET FIXTURES

Downing, J. S.

TOOTH PASTE

Jewsbury and Brown
Maw, Son and Thompson
Sutton, O., and Co. (Blat k)
Wood, M. (Arca)

TRADE MARKS

Horn and Son

TRUSSES

Bailey, W. H., and Son
Gowen, H. M.
Evans, Sons and Co.
Heywood, J. L.
Lynch and Co.
Maw, Son and Thompson
Schutze and Co.

TYPE-WRITING

Facsimile Apparatus Co.
Pollard, A. W.
The Universal "Simplex"
Type-Writer

VANISH

Clark, W.
Cottinurst and Harding
Prunk, Davis and Co.

VACCINE LYMPH

Associator for the Supply
of the Pure

URETHANE

Howards, Sons and Co.

VALUERS AND

TRNSFR. AGNTS

Baker, P. C.
Bradage and Co.
Tomlinson and Sons

VERMIN KILLERS

Battle, J. K.
Sanford and Son
Steiner and Co.

VETERINARY

Clark, W.
Corner, H. (Devonshire Oils)
Day and Sons
Day, Son and Hewitt
Gregory, G. W.
Gregory, W.
James, H. J. (Bliater)
Ravatt's Dogs
Tomlinson and Hayward

VINEGAR

Bothermel Making)

WAFERS

Crouch, F. B. (Damiana)
Loock, Dr. (Pulmonia)

WHALE & EXPT

DRUGGISTS

Allen and Hanbury
Barron, Squire and Co.
Beckley, J. T.
Burgoyne, Burbridge
Bush, W., Son and Co.
Evans, Lecher and Webb
Evans, Sons and Co.
Evans, Sons and Masor (Lim.)
Terry and Co.
Harker, Stagg and Morgan
Hearon, Squire and Francis
Hewlett and So
Lorimer and Co.
Hill and Son
Oldfield, Pattison and Co.
Potter & Clarke (American, & C.)
Southall Bros. and Barclay
Summer, R., and Co.
Syms and Co.
Thompson, Millard and Co.
Thompson, H. A., and Son
Woolley, Jas., Sons and Co.
Wright, Layman and Umtry
Wyleys and Co.

WINEW TABLETS

Corsan, J. R. (Engraved)

PATRONISED BY HER MAJESTY.

BARBER'S ORIGINAL CRIMSON MARKING INK

WHICH IS CHANGED BY HEAT TO A JET BLACK.



Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

ALSO

BARBER'S CONCENTRATED LIQUID COCHINEAL

FOR COLOURING JELLIES, CUSTARDS, ETC.

Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., CLUB MOOR, LIVERPOOL

Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO. Melbourne; ELLIOT BROS., Sydney and Brisbane; KEMP THORNE, PROSSER & CO., Dunedin and Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers G. BARBER & CO., Club Moor, Liverpool, England.

JUST PUBLISHED.

J. SANGER & SONS' ADDENDA TO PRICE CURRENT

With over 300 Illustrations. It will be found to be a most Comprehensive List of

PROPRIETARY MEDICINES, DRUGGISTS' SUNDRIES

PERFUMERY, LOZENGES,

MINERAL WATERS, &c.

AND WILL COMPARE FAVOURABLY WITH
ANY OTHER LIST AS TO

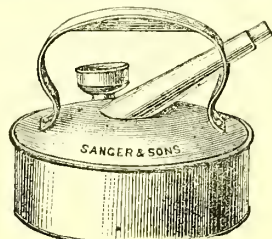
PRICES CHARGED.

POST FREE ON RECEIPT
OF BUSINESS CARD.

Purchasers of Druggists' Sundries, Small Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

AGENCIES OF ALL KINDS UNDERTAKEN
ON FAVOURABLE TERMS.

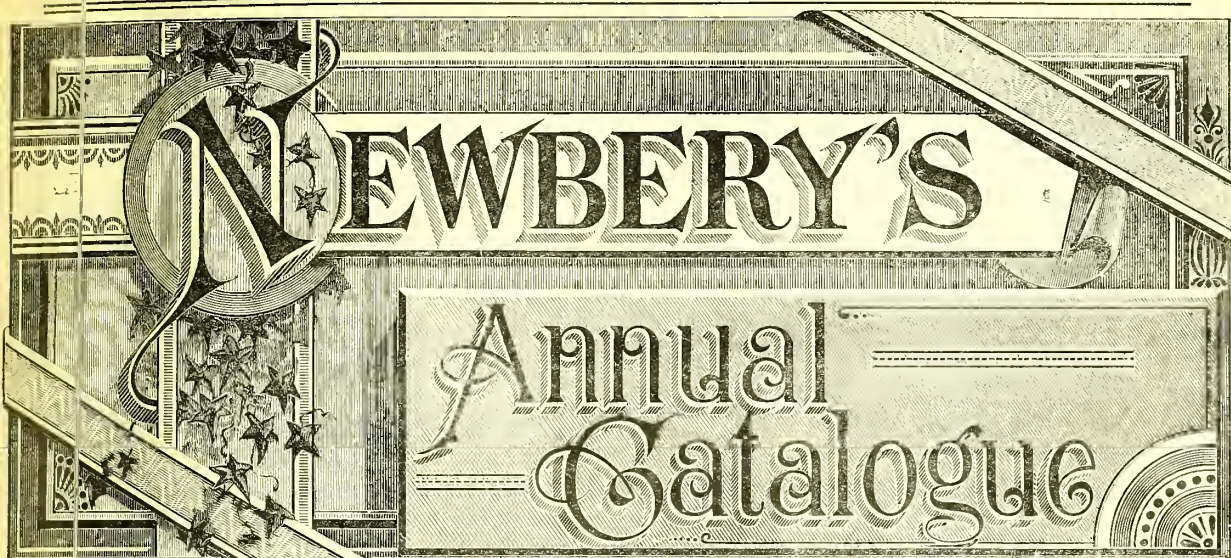
Messrs. J. SANGER & SONS beg to call attention to the new BRONCHITIS KETTLE (Block Tin), which they are able to offer at a LOWER PRICE than any yet placed before the Trade. This Kettle having a fixed open funnel can be slowly filled whilst boiling without removal from the fire.



PRICES.

SMALL SIZE— $3\frac{1}{2}$ pints capacity, per doz. **21/-**, less our discount.
MEDIUM SIZE—5 pints capacity, per doz. **26/-**, " "
LARGE SIZE—7 pints capacity, per doz. **31/6**, " "

J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.



1 KING EDWARD STREET, LONDON, E.C.,

FEBRUARY, 1888.

The above Catalogue is now in circulation. It contains a special Supplement relating to the Medicine Act, and a complete reprint of the Act itself. It is issued ONLY to members of the Trade, and applications should be accompanied by Business Card or Circular.

“TAUNUS.”

GUARANTEED NATURAL SPARKLING MINERAL WATER.

SPRING AT GROSSKARBEN, FRANKFORT-ON-THE-MAINE.

AS SUPPLIED TO

Her Majesty the Queen.
The Prince of Wales.

The Emperor of Germany.
The King of Greece.

Proprietors:—**THE TAUNUS SPRING NATURAL MINERAL WATER CO., LIM.**

HEAD OFFICES:—23 LIME STREET, LONDON, E.C.

TRADE TERMS ON APPLICATION.

146 MINORIES, LONDON E.C.

10, YORK ST.

10, ST. MARK'S

BOXES BOTTLES. MACHINERY.

ESSENCES

Catalogues, Circulars, Testimonials

Post free

SODA WATER MACHINERY

AND ALL ACCESSORIES
FOR THE TRADE

BRATBY & HINCHLIFFE

HEAD OFFICE

SANDFORD ST. ANCOATS, MANCHESTER.

THE "LONDON-MADE" SYPHON BOTTLE

(TITLE REGISTERED).

Obtained the HIGHEST AWARD at the International Health Exhibition, London, 1884.

The high reputation this bottle has achieved is due to the fact of its being in every particular the most perfect yet introduced; and when compared with others in the market it stands pre-eminent. It is most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the top being sufficient; it produces a more highly-charged gaseous water than is usually obtained from syphons; it compares most favourably in appearance with any, and, the metal top being entirely free from lead, the prejudice against syphon drinks is at once removed, as the liquid passes over pure tin only.

All our Syphons are now fitted at the base with a groove, so that drips from the spout that run down the sides are prevented from soiling the table. See drawing.

NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private-house use. Send for sample; forwarded upon receipt of 2s.

Any name, crest, or trade-mark put on the glass by an improved acid process, at from 1s. to 2s. per gross. There is a three-fold advantage in this, as it forms a continual advertisement, is a great ornament, and a preventive of fraud. The plate for engraving costs extra from 5s. upwards, according to the artistic device required.

PRICES (WHITE, BLUE, GREEN, OR AMBER):—

	By the gross, per doz.	Less than 1 gross per doz.
Quart size	£1 2 0	£1 4 0
Pint size	1 1 0	1 3 0
Half-pint, Pear shape	1 0 0	1 2 0
Octagonal vases, any colour (including Azure Blue)...	1 4 0	1 6 0

Tops, nickel-plated, from 5s. 6d. per doz. extra. Tops, silver-plated and burnished, from 9s. per doz. extra. A charge is made for packing, except when ordered in our patent bin cases (holding one dozen each, price 2s. 6d. each).

Please Note.—B. & F. are the only firm manufacturing Syphons in England who do not supply them filled, and so compete with their customers' trade.

BARNETT & FOSTER,

MINERAL WATER ENGINEERS,

Manufacturing Chemists, and General Providers for the Aërated Water Wine, Beer, and Cyder Trades,

"Niagara Works," 26th Eagle Wharf Road, London, N.

Send for Price List of Soda-water

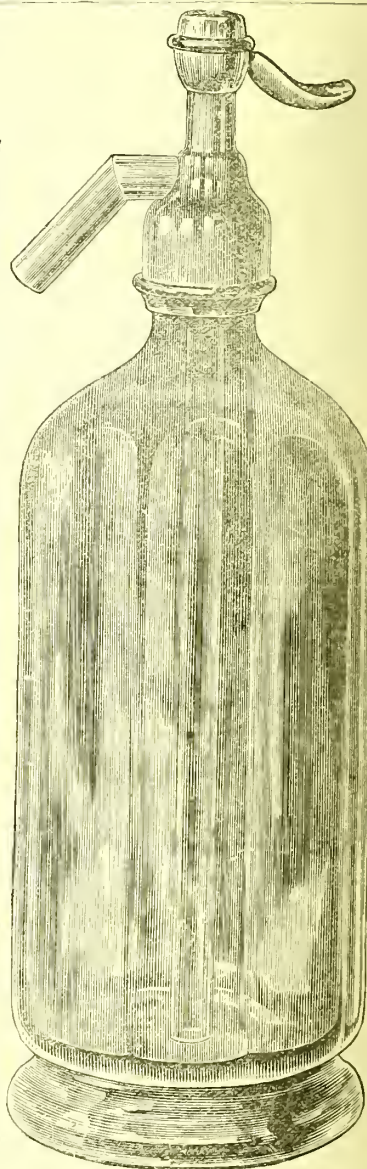
Machinery and Accessories.

JAMES VIDIE ET FILS

Pantin Glass Works, Paris,
PATENTEES OF THE
OCTAGONAL SYPHON

The "Octagonal" is externally similar to the ordinary Syphon, the interior being blown of an octagonal shape by a new patent process.

REGISTERED TRADE MARK.

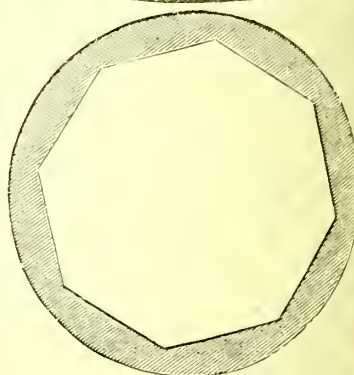


REGISTERED TRADE MARK.
Gives a most brilliant and sparkling appearance to the contents, and can resist double the pressure of ordinary Vases. Greatly recommend our new tin "AZURE BLUE" which

Sample
sent on
receipt of
2/-

Sample
sent on
receipt
2/-

TO BE HAD OF
Messrs. BARNETT & FOSTER,
THE BRITISH SYPHON CO.,
And all Mineral Water Engineers.



TO BE HAD OF
Messrs. IDRIS & CO.,
Messrs. HAYWARD TYLER & CO.,

SOLE AGENT:

C. MELIN, 37 CRUTCHED FRIARS, LONDON, E.C.

HAY'S HOP ALE ESSENCE

REGISTERED TRADE MARK.

FOR THE MANUFACTURE OF THE FINEST AERATED HOP ALE.

Is made from the Choicest Hops Grown.

HAY'S HOP ALE ESSENCE

"Supplies an excellent
stomachic, appetising, and
agreeable summer drink."

Brewers' Journal.

"A beautiful es-
sence, has a fine Hop
Aroma, and is quite a
pharmaceutical triumph."

The Chemist and Druggist.

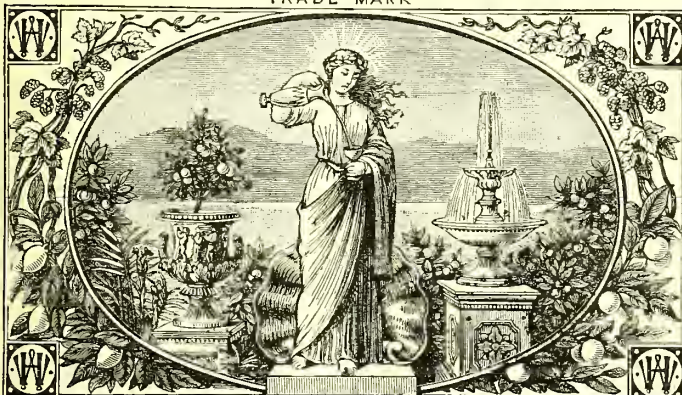
"For its Essence a bril-
liant future may be anti-
cipated. It possesses charac-
teristics very seldom to be
met with."

Mineral Water Trade Review.

"For your strength, and
real solvency, this Essence
leaves nothing to be desired."

British Colonial Druggist.

TRADE MARK



REGISTERED.

HAY'S HOP ALE

"This is an excellent Non-
Alcoholic beverage."

The Lancet.

"Evolves a delicious aroma
of Hops."

Medical Press.

"It is a Fine Bitter
Beer, pouring out with a
rich creamy head."

British & Colonial Druggist.

"Possesses the Aromatic
bouquet and pleasant flavour
of the genuine Hop."

Mineral Water Trade Review.

"Is a nearer approach to
Bass or Allsopp's Ale than
any non-intoxicants preced-
ing it."

Eastern Morning News.

Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s.

Quantity required, two fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE

FOR THE MANUFACTURE OF THE FINEST AERATED HOP ALE.

"Since Mr. HAY, the well-known Manufacturing Chemist, of Hull, surprised the Pharmaceutical world, some ten years since, by the production of
that, it then, had been thought an impossibility, viz., a perfectly soluble and transparent ESSENCE OF GINGER, nothing he has done
has attracted so much attention in this direction as his latest ESSENCE OF HOPS, which, like his other Essences, is a production unique
in itself. The HOP ALE made from this Essence evolves a DELICIOUS AROMA OF HOPS, and supplies that much longed-for
desideratum of abstainers, 'A Glass of Non-Alcoholic Beer.' We have always felt that teetotallers laboured under a disadvantage that ought not to
exist, in having no really decent beverage in the place of Wine and Beer. By this Pharmaceutical triumph of Mr. HAY, this difficulty has been over-
come, and it affords us much pleasure to commend this truly Temperance Drink to the notice of abstainers and non-alcoholic abstainers alike."
—Medical Press.

HAY'S HOP ALE ESSENCE [1]

"It is certainly remarkable for the purity and reality of its results. Made from the choicest hops, and treated in a manner of which Mr. HAY appears
to possess the monopoly, this HOP ALE ESSENCE supplies an excellent stomachic, and an agreeable stimulating Summer Drink. The
HOP ALE produced by this ESSENCE is of a most refreshing and invigorating character, with all the appetising flavour and delicate aroma
of its most intoxicating prototype, which it approximates more closely than any similar preparation we have yet tasted. It may be advantageously
taken as a specialty for which a large consumption may safely be predicted."
—Brewers' Journal.

W HAY, Manufacturing Chemist, Beverley Road, HULL,
ENGLAND.

W. J. BUSH & CO.'S ENGLISH DRAWN ESSENTIAL OILS.

Always Uniform and of Exceptionally Fine Quality.

THE ONLY MAKERS OF EVERY KIND OF ENGLISH DRAWN ESSENTIAL OILS.

CONCENTRATED FRUIT ESSENCES.

Five or Six times the Strength of, and Vastly Superior to all others.

SOLUBLE ESSENCES.

Much Stronger and Infinitely Superior in Flavour to all Imitations,
consequently cheaper in use.

FRENCH CREAM GUM EXTRACT.

(Protected by Royal Letters Patent.)

For producing froth on Beers, Aerated Waters, &c., &c.

ENGLISH SANDAL WOOD OIL

Absolutely Pure and always uniform.

Dr. HENDERSON, of Glasgow, writes :—"It is a pure oil of a high character. I have tried it in numerous cases of gonorrhœa; it was rapidly successful in all. The oil disagreed with no one."

THE LANCET states :—"It is admirably adapted for use as a medical agent."

THE BRITISH MEDICAL JOURNAL states :—"It is unusually agreeable to the disagreeable taste."

THE CHEMIST AND DRUGGIST states :—"The fact that Dr. Henderson speaks highly of this oil is the best proof of its therapeutic activity."

ARTILLERY LANE, BISHOPSGATE, LONDON E.C.

IDRIS & CO.'S

Aerated Waters
Syphons
Seltzogenes
Cordials
Liqueurs
Natural Wines
Lime Juice
Syrups
Essences

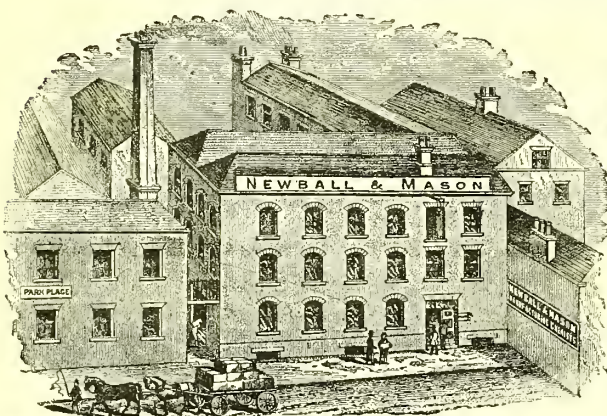
BEST GOODS. LOWEST PRICES.

For Further Particulars see "Chemists' and Druggists' Diary," page 211.

IDRIS & COMPANY,
Manufacturing Chemists, Mineral Water Makers, Syphon and Seltzogene Manufacturers,
EXPORT AND IMPORT MERCHANTS,
SCHEM STREET, KENTISH TOWN, LONDON, N.W., AND 3 WEST ST., FINSBURY CIRCUS, E.C.
TELEPHONE No. 7522. TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

NON-INTOXICATING BEER

PRODUCED AT A SMALL COST AND LITTLE TROUBLE.
ONE TABLESPOONFUL MAKES A GALLON.



MASON'S ORIGINAL

EXTRACT OR **ESSENCE OF HERBS**

(REGISTERED).

Composed of Yarrow, Dandelion, Comfrey, & Horehound.

FOR THE SPEEDY PRODUCTION OF

HERB OR BOTANIC BEER

This invaluable preparation is carefully compounded from the above well-known Herbs. Notwithstanding so many imitations got up to resemble the original, it stands unrivalled for the production of a most delicious, wholesome, and non-intoxicating beverage, full of body and flavour, and a rich creamy head like bottled ale.

INVENTORS AND MANUFACTURERS—

NEWBALL & MASON, Chemists
Park Place, NOTTINGHAM.

WHOLESALE AGENTS.—LONDON—Sanger & Sons, Lynch & Co. Barclay & Sons, Edwards & Sons, Newbery & Sons, Hovenden & Sutton & Co. LIVERPOOL—Evans, Sons & Co.; Jno. Thompson LEEDS—Goodall, Backhouse & Co.

COLONIAL AGENTS WANTED.

BEWARE OF OTHERS WHO PRINT
Copies of our Labels.
BEWARE OF OTHERS USING the same
words in order to deceive.
BEWARE OF CHEAP FOREIGN
PRODUCE.

MASON'S IS A SPECIAL COMPOUND,
AND THE ORIGINAL PREPARATION.

ALL OTHERS ARE IMITATIONS.

Sold in Bottles, 6d., 1s., 2s., 5s., and 20s. each.

Is not Affected by

Prices, Circulars, Show Cards, &c., on application
Climate or Weather.

SELTZOGENES.

For quotations of all descriptions see Druggists'
Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, | EVANS, SONS & MASON, LIM.
60 Bartholomew Close. | Montreal, Toronto; and Victoria,
British Columbia.

& F. J. TAYLOR'S

AERATED WATERS,

Newport Pagnel.

ESTABLISHED 1885.



SODA POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

TEMPERANCE BEVERAGES

A Sixpenny Bottle of

ADAMS'S EXTRACT OF HERBS

Will make 8 gallons of sparkling, wholesome, and refreshing

PRIME HERB OR BOTANIC BEER.

Unequalled in strength and richness of flavour by any preparation made from fresh herbs.

The Extract is very carefully manufactured, on the most improved scientific principles, from the herbs and plants gathered and dried at the proper season, when their virtues are in full vigour, thus retaining the invigorating and health-giving properties.

It makes an excellent beverage, giving natural flavour and colour, and a sparkling foam like bottled ale.

In Bottles, 6d. to make 8 gals.; 1s. to make 18 gals.; and 2s. 6d. to make 50 gals.

ADAMS'S GINGER ALE ESSENCE

makes a sparkling, refreshing, and invigorating beverage for summer and winter.

ADAMS'S SPARKLING FOAM PRODUCER

One tablespoonful added to 2 gallons of the Herb Beer or Ginger Ale, just before bottling, gives a creamy foam like bottled ale.

Wholesale Agents,

W. ELWARDS & SONS, Queen Victoria St., London

Specially favourable terms to large Buyers from the PROPRIETOR,

B. ADAMS, Mansfield, Notts

PRIZE MEDAL

ESTABLISHED 1812.



HEALTH
EXHIBITION.

POTTER & CLARKE,



Registered Trade Mark

WHOLESALE AND EXPORT BOTANIC DRUGGISTS,
75 WESTON STREET, LONDON, S.E.

SPECIALITIES—

POTTER'S HERB BEER EXTRACT

For the production of a splendid Botanic Beer, with a good colour, flavour, and body, and a creamy head like bottled ale. The demand for this article last year was exceedingly large, and the demand this year bids fair to be still larger. All Chemists will find it a profitable article of sale.

Price 1/ per lb. Special quotations for quantity. In 6d. Bottles, 3 6 per dozen.

Supplies of printed matter sent with all 6d. Bottles. Will keep good in any climate.

FLUID EXTRACTS. NEW REMEDIES.
MEDICINAL HERBS IN PACKETS.

Price Lists on application. Telegraphic Address—"HOREHOUND, LONDON."

FOREIGN INDENTS RECEIVE OUR SPECIAL ATTENTION.



ESTABLISHED

BISHOP'S

1857.



GRANULAR

EFFERVESCENT PREPARATIONS.

CITRATE of CAFFEINE.

(Remedy for Sick Headache.)

CITRATE of LITHIA.

HYDROBROMATE of CAFFEINE

(Remedy for Nervous Headache.)

CITRATE of POTASH, &c., &c.

CITRATE of MAGNESIA.

(As originally invented by Mr. BISHOP in 1857.)

VICHY SALTS.

PULLNA "

SELTZER "

CARLSBAD "

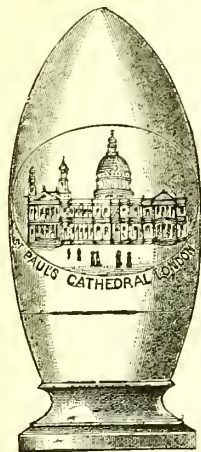
FRIEDRICHSHALL, &c., &c.

Note the name BISHOP on the Seal, and Trade Mark on Label.

ALFRED BISHOP & SONS, "SPECK'S FIELDS,"
48 SPELMAN ST., E.

BUYERS, BOTH **HOME AND EXPORT,** ARE REQUESTED
NOT TO MISS THIS AND OPPOSITE PAGE.

A NOVELTY.



Styles 11A and 14A of the A 1 Brand Menthol Cones can now be had, with views of London on the back of the cases. The full directions as to uses, &c., of the Menthol are printed on one side, and the view on the reverse. The views are beautifully engraved, and render the cones the most saleable yet introduced.

Colonial Buyers should not miss this, as many who seldom, if ever, have visited London will buy the Menthol for the sake of the views, especially as no extra is charged for them.

Style 11A.

Style 14A.

3/6 per doz. 6/3 per doz.

Particularly Saleable in those countries or quarters where the Roman Catholic or Greek religion prevails.



FUMIGATING RIBBON.

This Ribbon, when imported, a delightful fragrance the air, and will be found invaluable for the Sick Room, Nursery, &c. Indispensable to every drawing-room, as, after being a few minutes, a vapour is performing the whole room. As a substitute for Incense, it has no equal.

Elegantly put up in Gold Boxes.

Price 3/6 per doz.

With order for 3 doz. a **SHOW STAND** is given away, with 2 yards of spare ribbon, to practically show its value. A packet of cards explaining its uses also given.

SMELLING SALTS FOR THE SEASON.

Before Buying your Smelling Salts, write for prices, &c., of Shirley's A 1 Brand Inexhaustible Salts, put up in every variety of bottles, suited to all classes of trade. Below is given list of a few leading lines:—

- Style 1.—A Nickel Capped Bottle, filled with Turkey Sponge, Strongest Ammonia, and highly scented with Lavender, prettily labelled, 12 enclosed in a hinged cardboard box. Price 2s. per dozen; 11s. for Six dozen; 20s. per gross. (Filled with Salts instead of Sponge, 3s. per gross extra.)
- Style 40.—A Pretty Watch Bottle, octagon cuttings, stoppered, filled with Sponge, &c., as No. 1. 1s. per dozen; 23s. for Six dozen; 43s. per gross. (Filled with Salts instead of Sponge, 3s. per gross extra.)
- Style 42.—A very Saleable Watch Bottle, well-stoppered, with a firm bottom, that stands well, filled with Sponge, &c., 4s. per dozen; 23s. for Six dozen; 43s. per gross. (Filled with Salts instead of Sponge, 3s. per gross extra.)
- Style 54.—A large Actinic Green Bottle, English stoppered, filled with Salts and highly scented; good serviceable line, specially suited for home use, to stand on the mantelpiece. Price 7s. per dozen.
- Style 10.—An Elegantly Cut Toilet Shape Bottle, square bottom, stands well, filled with Sponge, &c., 3d. per dozen. (Filled with Salts, 7s. 6d. per dozen; empty, 6s. 6d. per dozen.)

In addition to above a large variety kept in stock to choose from.

Specially Low Prices to Wholesale Houses and Large Buyers for Filled and Empty Bottles.

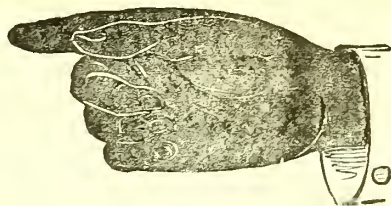
Contracts entered into for large quantities for the 6d. Lines for the season, deliveries to take place as required, so that Buyers could have them in, freshly filled with Ammonia, &c., as they wanted them.

BEFORE BUYING ELSEWHERE WRITE FOR QUOTATIONS TO

ARTHUR W. SHIRLEY (LATE J. G. Shirley), 30 Paternoster Square, London, E.C.

[See opposite page.]

"KILL TWO BIRDS WITH ONE STONE"



"Any **A1 BRAND MENTHOLS** with printed directions on, and in addition have an Advertisement of a Specie of your own along the back of the boxes, such as 'Smith's Tonic for Strengthening the Nerves, 1s. 6d. per bottle &c. By this means every Menthol Cone you sell helps to create a sale for your own preparation. If you wrap a handkerchief round a bottle, when the bottle is used the bill is thrown away and the advertisement lost; but the printing on the Menthol boxes being permanent, every time a person uses the cone he is bound to see any advertisement appearing on the bill, thus making this one of the most lasting and efficient means of advertising to be found anywhere. The only chance for a chemist nowadays is in selling his own specialities, therefore do not lose such an opportunity as this of advertising them."

BUYERS OF AS SMALL A QUANTITY AS ONE GROSS

Can be their name and address, &c., printed on the back of the boxes *free of charge*, thus bringing this offer within the reach of most Chemists, a gross of cones being no ill stock at any time.

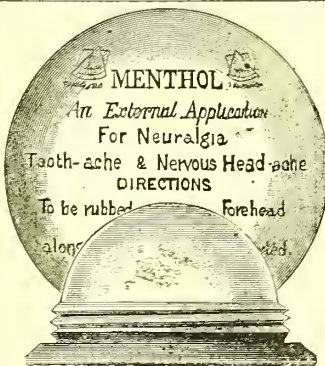
SPECIAL PRICES TO LARGE BUYERS. QUOTATIONS SOLICITED.

DUMMY CONE, measuring 9 inches high, made of highly polished boxwood, with directions printed on clearly, is given to purchasers of £1 worth; or two if an order for 30 is placed.

No.	Description.	Price per doz.
1	6d. Ass Bottles with Metal Screw Cap	3 3
1b	6d. Ass Ditto Ditto	3 4
2	6d. Willow Wood, lid serving as holder.	3 0
2b	6d. Ass Barrel Shape	3 3
3	9d. Ass Bottles, with Metal Screw Cap	5 0
4	1s. Do. Do. (Menthol on Wood)	6 0
5	1s. Do. Do. (Bullet Cone wrapped in tinfoil)	6 0
6	9d. Boxwood, Pedestal Shape	5 0
7	9d. Do. Barrel Shape	6 0
8	9d. Do. Acorn Shape	6 0
9	9d. Do. Skittle Shape	6 0
9a	1s. 0 6 Do. Do.	7 6
9c	1 16 2s. Do. Do.	9 6
9s	6d. Ass good value, Do.	4 0

(A very cheap line.)

10	6d. Long Willow Boxes, 12 on a Card	3 6
11	6d. Willow Pedestal, each in a box	4 0
11a	6d. Ditto 12 in a box	3 6



No. 17L-1s.

No.	Description.	Price per doz.
13a	1s. Vegetable Ivory, 12 in a box, Acorn Shape	5 9
14	1s. Pyramid Shape, each in a box	6 6
14a	1s. Ditto 12 in a box	6 3
14L	1s. or 1 16 Ditto extra-sized Cone, 12 in a box	7 6
15	6d. Cardboard Case, 12 in a box	3 0
17L	1s. Draughtsman Shape, Boxwood only, extra large	6 6
17	1s. Ditto Ebony only	6 3
17s	6d. Ditto Boxwood	4 0
18	1s. Combination Pincushion and Menthol	7 0
19	6d. Boxwood, Egg Shape, on elegant Card	3 0
20	1s. Smelling Bottle Menthol	7 6
21	1s. Menthol on Boxwood stopper, covered with glass shade, very attractive, each in a box	6 6
21a	1s. Ditto 12 in a box	6 3
23	6d. Ditto Ditto each in a box	4 0
23a	6d. Ditto 12 in a box	3 6
24	6d. Boxwood, Bottle Shape, very attractive	3 6

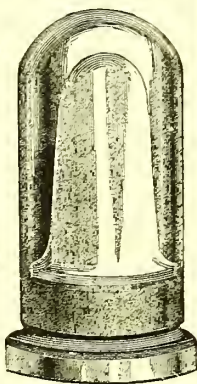


No. 9s, 6d. or 9d.



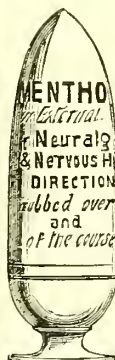
No. 24.-6d.

Buyers can have View of their premises put on with equal ease if photograph is sent. Sample of Printed Cones sent with pleasure to intending large purchasers, showing various styles of Printing.



Nos. 21 and 21A.-1s. Nos. 23 and 23A.-6d.

ORDER DISTINCTLY AS SHIRLEY'S A1 BRAND. Of all WHOLESALE HOUSES and MERCHANTS, or DIRECT from the MANUFACTURER.



Nos. 11 & 11A. 6d.



Nos. 14, 14A, and 14L.

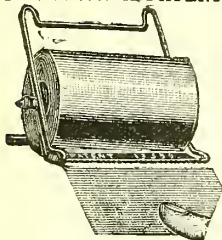
THE BEST IS THE CHEAPEST IN THE LONG RUN, so if you want MENTHOL CONES ORDER SHIRLEY'S A1 BRAND.

SOLE MANUFACTURER—

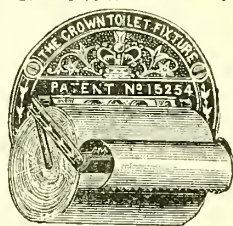
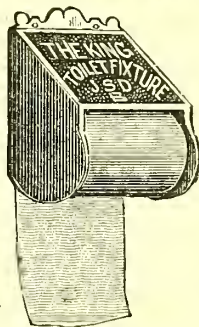
ARTHUR W. SHIRLEY, (LATE J. G. Shirley), 30 Paternoster Square, London, E.C.

HEAD QUARTERS FOR TOILET FIXTURES.

THE SIMPLEX PATENT.

9/ dozen.
Complete with roll.

THE CROWN PATENT.

Bronze Finish, 15/ dozen.
Nickel " 18/ dozen.
Complete with roll.

THE "KING."

In Nickel Case ... 12s. 6d.
Refills ... 8s. 6d.

Always ready for use.

THE "KING" Package is made of sheets $6\frac{1}{2}$ by $4\frac{3}{4}$ inch of soft toilet paper, slightly attached to each other. When one sheet is used, another falls into position, and so on till the entire package is used. There is no waste, as only one sheet can be taken at a time.

THE THREE BEST FIXTURES IN THE MARKET.

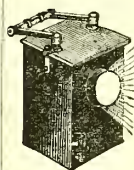
GREAT REDUCTION IN PRICE OF ROLLS.

1st QUALITY ... 5s. 6d. per doz, or 63s. per case of 1 gross.
2nd ditto ... 4s. 6d. ditto 100s. ditto 2 gross.

JOHN S. DOWNING, Commercial Street, BIRMINGHAM. | London Agents: 73 Virginia Street, GLASGOW. | 9 Rose Street, E.C.

Price £3 carriage paid to England.

Manufactured by the FRISTER U. ROSSMANN COMPANY, Berlin.

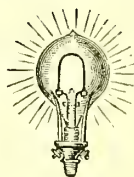


ELECTRIC

PORTABLE SAFETY LAMP

As simple as an ordinary Lamp. 2½ hours' Light from one charge for 5d. Write to the

PATENTEE, ALBERT FRIEDLAENDER, ELECTRICIAN, BERLIN, W.8. [1]



The New Electric Portable Battery

FOR MEDICAL PURPOSES AND SURGICAL LIGHT.
Battery Current regulated by turning a knob.

CHROMIC ACID POWER,

Soluble in water only.

Albert Friedlaender, Electrician, Berlin, W.8.



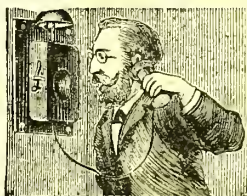
THE STAR INCANDESCENT LAMP

From the smallest Fairy Lamp up to 25 C.P.

ELECTRIC LIGHT CARBONS.

Guaranteed Steady Light. [2]

Albert Friedlaender, Berlin, W.8.



TELEPHONES.

TRANSMITTERS AND RECEIVERS.

Latest and Best Construction.

Thousands in use by the German Government.

Complete station, £2 15s., carriage paid to England.

ALBERT FRIEDLAENDER, ELECTRICIAN, BERLIN, W.8.

A. S. LLOYD'S EUXESIS,

For Shaving without Soap, Brush, or Water.

CAUTION.

The only Genuine has a yellow label printed ONLY in Black Ink, and bears the original address of the late inventor, "27 Glasshouse Street, Regent Street," the proprietors having purchased under an administration suit, the Secret, Trade Mark, Goodwill, and Premises:

SOLE PROPRIETORS

R. HOVENDEN & SONS, LONDON.

ST & AFEST DENTIFRICE

BY ALHEMISTS
PERFURRS. IN
CANT CRYSTAL
ILET CCKET

PRICE 2/6.

DO IN PANT
ALLIC B

PRICE 1/



OSCAR SUTTON & CO., Preston, Lancashire.

OS Tooth Blocks can be had through all the leading Wholesale Houses throughout the world. No. 0, loose, without boxes; No. 1, in patent metallic boxes; No 2, in crystal caskets.

The sales have enormously increased. Counter bills, with retailers names, supplied gratis through any Wholesale Agent.

OVER 1,000 TESTIMONIALS.

CAUTION.
A. S. LLOYD'S EUXESIS,
FOR SHAVING WITHOUT SOAP, WATER, OR BRUSH.

Genuine Euxesis bears the following distinctive marks:—

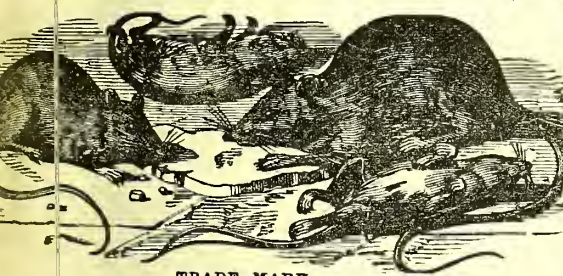
- 1.—y full name AIMEE LLOYD on cap of tube.
- 2.—he words "Prepared only by his Widow" and my signature of AIMEE LLOYD in black ink across labels, in addition to my late Husband's signature in black ink.

AIMEE LLOYD

(WIDOW OF A. S. LLOYD, formerly of 27 GLASSHOUSE STREET,)

3 SPUR STREET, LEICESTER SQUARE, LONDON.

BATTLE'S VERMIN KILLER. { Mice eat it readily, and Die on the spot.



TRADE MARK.

Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I only received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1887.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

JOHN OAKLEY & SONS,

MANUFACTURERS OF

ss Poer, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels, Pumice, Puty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKLEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakley's Patent Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines.

Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

OAKLEY'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKLEY'S "POLYBRILLIANT" (Registered).

A Ma; Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Pastes. Tins 1d., 2d., 3d., and 6d. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

ELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

TOOTH BRUSHES. HAIR BRUSHES. DRESSING COMBS.

SHERLOCK BROTHERS,
BRUSH AND COMB MANUFACTURERS,
And Dealers in Chemists' Sundries,
22 PENTONVILLE ROAD, LONDON.

Established 1820. Price List on Application.

SPRAY PRODUCERS

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

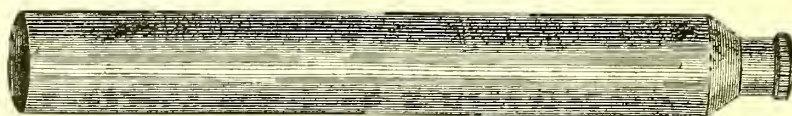
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

EVANS, SONS & MASON, LIM.
Montreal, Toronto; and Victoria,
British Columbia.

H. BROOKS, PEEL & CO. COLLAPSIBLE TUBE MANUFACTURERS,

Patentees and Sole Manufacturers of the PORTABLE METAL SPRINKLER STOPPER, and Dealers in GLASS BOTTLES FOR PERFUMERS AND OTHERS.

Steam Factories: 31 Lyme Street, Camden Road (Offices), and Bartholomew Road, Kentish Town, London, N.W.



COLLAPSIBLE TUBES
OF ALL SIZES

For Perfumes, Artists' Colours, Creams, Oils, Varnishes, &c. Inexpensive and portable, and many useful purposes besides mentioned.

SOLE MANUFACTURERS AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,

With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c. These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass tin boxes, suitable for shop counters and show cases, at moderate prices.

THE "TORSION" PATENT SPRINKLER

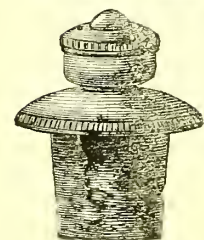
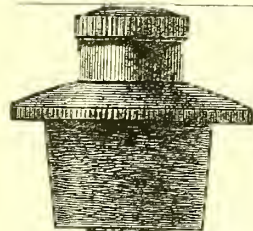
The two designs, Nos. 18A and 19A, are those to which we direct special attention, as sizes being in general use other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste.

Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion." This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is especially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All orders received direct will be promptly attended to.

CAUTION.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. by 2½.



No. 18A.

SEVEN SEALS

Chemists will do well to lay in a Stock of
As the same is now being Extensively Advised.

THE WORLDS GREATEST PAIN

SEVEN SEALS. The Greatest Pain Cure

SEVEN SEALS. Will destroy instantly every form of

SEVEN SEALS. EXTERNAL and INTERNAL Aches and

SEVEN SEALS. Pains. Will cure absolutely every kind of

SEVEN SEALS. EVERY KIND, GOUT, RHEUMATISM, SCIZEM

SEVEN SEALS. LUMBAGO, SCIATICA, BRUISES, SCALDS, SPRAINS, WOUNDS, D

SEVEN SEALS. TOOTHACHE, BUNIONS, NEURALGIA IN FACE, D HEAD

SEVEN SEALS. BURNS, SCALDS, SPRAINS, STIFF JOINTS, DIARRH

SEVEN SEALS. and CRAMPS, and ALL CRUEL

SEVEN SEALS. ING PAINS, whether EXTERNAL or

SEVEN SEALS. INTERNAL.

SEVEN SEALS. Perfectly harmless and pleasant to

SEVEN SEALS. taste. May be taken with comfort by

SEVEN SEALS. Women and Infants as readily as

SEVEN SEALS. by Men.

SEVEN SEALS. Twenty years' successful record in

SEVEN SEALS. America, and Millions of bottles sold

SEVEN SEALS. Thousands of Testimonials, wondrous

SEVEN SEALS. cures effected by Seven Seals.

SEVEN SEALS. Price 2s. 9d. and 4s. 6d., all respect

SEVEN SEALS. able Chemists and Patent Medicin

SEVEN SEALS. Dealers.

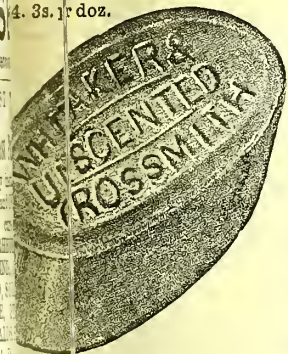
SEVEN SEALS. PROPRIETORS

SEVEN SEALS. THE KENNEDY CO., LIM., 112 Southam

SEVEN SEALS. 112 Southam

WHITAKER & GROSSMITH

4. 3s. per doz.

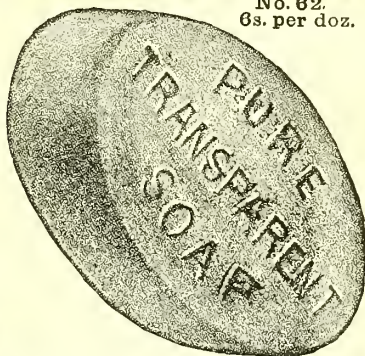


The acknowledged best Makers of the
**REAL OLD ENGLISH
TRANSPARENT SOAP,**

In Tablets, Shaving Sticks, and Balls. 25 per cent.
cheaper than any other of its kind in the Market.

Proprietors of the Celebrated
WHITE GLYCERINE SOAP
AND
SANITARY EUCALYPTUS SOAP.

No. 62.
6s. per doz.



THE NEW
**EXTR. CONCENTRATED
PERFUMES.**

"WHITE CLOVER" (Regd.),
"WHITE HELIOTROPE,"
"WHITE VIOLET,"

Sprinkle, 3 in a Fancy Case,
1s. per dozen; 14s. per pint.



2/6

2/6

Registered.

THE
**TEROZONE
AIR PURIFIER**

No. 25,555.

Purifies the air and generates
ozone by simple and spontaneous
evaporation.

12s. per dozen.

SLK ST. LONDON.

WHITE AND SOUND TEETH.

JEWSBURY & BROWN'S

ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.



-CLASS PERFUMERY

ESTS. J. ATKINSON & Co.'s
are of aroma and
particularly fine."
& Drugst,
1887.

ATKINSON & CO.
Proprietors of the
REGISTERED
"ZENITH"
BRAND PERFUMES.

Samples and quotations on application,
at their only address,

57 INSURANCE SQUARE, LONDON.

PERFUMERY, POMADES, ETC.

For quotations of all descriptions see Druggists'
Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:
EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:
EVANS, SONS & MASON, LIM.
Montreal, Toronto; and Victoria,
British Columbia.



FABRIQUE
DE
MATIÈRES PREMIÈRES DE
PARFUMERIE.

PARFUMERIES DE SEILLANS

(VAR, FRANCE).

Flower Pomades. Perfumed Oils. Flower Extracts.

Essential Oils. Distilled Waters, &c., &c.

OF ALL WHOLESALE DRUGGISTS, OR WHOLESALE ONLY OF

R. C. TREATT, Dunster House, Mincing Lane, London.

SHIPKOFF & CO.

OTTO OF ROSE

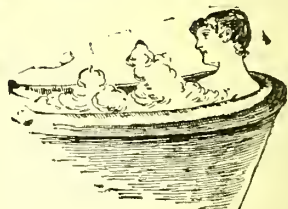
MANUFACTURERS & MERCHANTS,
KIZANLIK, BULGARIA.

VIRGIN OTTO ONLY DEALT IN.

REPRESENTED IN ENGLAND BY

GEO. P. BAKER, 19 Ivy Lane, Newgate St., London, E.C.

PASTA MACK.



By using this new and excellent preparation a most delicious BATH AND TOILET WATER will be obtained. Pasta Mack SOFTENS the SKIN.

BEAUTIFIES the COMPLEXION.

TRADE MARK.

Of all Chemists and Perfumers.

Sole Manufacturer, H. MACK, ULM, D.

THIS Unique Preparation has the extraordinary property of keeping the

HAIR IN CURL.

Now used by Ladies in all parts of the World.

Needs but an introduction to command a ready and constant sale.

RETAIL
1/6.

FRIZZETTA
(REGISTERED.)

Foreign and Colonial should write for Terms.

F. W. BATES, CHEMIST,
BROOKS'S BAR, MANCHESTER.

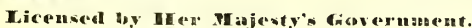
Telegraphic Address—"FRIZZETTA MANCHESTER."

THE BRITISH HYGIENIC COMPANY'S SPECIALITIES.

VICTORIA WORKS, BLUNDELL STREET, LONDON, N.

Almond Popoline	-	-	-	-	1d. Boxes.
Cherry Tooth Paste	-	-	-	-	1d. "
Almond Popoline Soap	-	-	-	-	1d. Tablets
Almond Popoline Tooth Powder	-	-	-	-	1d. Boxes.
Almond Popoline Toilet Powder	-	-	-	-	1d. "
Eau Dentifrice for Sweetening the Breath	-	-	-	-	1d. Bottles.
Rhubarb Pills	-	-	-	-	1d. "
Seidlitz Powders	-	-	-	-	Boxes { of 12 Pos.
Cachous	-	-	-	-	1d. Bottles
Perfumes	-	-	-	-	1d. "
Zeolite Metal Polishing Paste	-	-	-	-	1d. Boxes.
Leatherine Dubbing	-	-	-	-	1d. "
Melanite Blacking	-	-	-	-	1d. "

All packed in $\frac{1}{2}$ Gross Boxes, with Transparencies and Illustrations.



In Engnd, medical men prescribe its use in preference to Quinine, or any Bark Wine. It may be used with safety at all times, al for any length of time, without injury to the gastric membrane. It may be taken in place of Liquors and Dessert Wines, whl it certainly surpasses in flavour. *It is a direct stimulant of the most active kind*, supporting life in a manner almost miraculous, without disturbance of the vital functions. For the voice, a wineglassful before any ordeal is sufficient. Its effect upon the vocal chords is surprising, and of great value to Public Speakers, Professional and other Singers, and

FRENCH HYGIENIC SOCIETY, 56 CONDUIT STREET, REGENT STREET, LONDON,
UPON RECEIPT OF A FULL REMITTANCE.

Licensed by Her Majesty's Government.

THE above preparation of DR. NACHTIGAL, M.D., is pronounced by the members of the Medical Profession to be a stimulant, tonic, and restorative to the system. In the shape of Tobacco and Cigarettes the smoke difficulty is overcome—all may enjoy their smoke with benefit to health. Any amount of muscular labour and mental exertion may be undertaken without the usual fatigue by those who smoke the above. It is much used by Bicyclists and Athletes generally, and all speak most favourably of it. From the Report of the Bavarian Army Corps, the officers and men of which used it during their severe labours in the heat of June and July, it is spoken of in the most flattering terms of satisfaction and commendation in every way, and as highly beneficial to the men who used it when on night service.

THE CHEMIST AND DRUGGIST (January 29th, 1883) says:—Tobacco smoking is so universal nowadays that some people regard it as a necessity rather than a luxury. If there are two opinions as to that, there cannot be regarding the fact that tobacco, even when smoked in moderation, does an infinite amount of harm to boys and adults who are not of robust habits; if it is used in excess by anybody bad results assuredly follow. Various substitutes for tobacco have been introduced from time to time, but with little success because of their "brown-paper" taste and non-satisfying results. This, however, I do not think, be the verdict regarding the coca tobacco invented by Dr. Nachrigal, of Stuttgart; first, because of its appearance, which resembles "York River" very closely, second, because of its pleasant taste, and, lastly, because the smoker feels that he *has* had a smoke after a pipeful of it. The coca tobacco does not contain nicotine, and depends for its invigorating properties upon the coca leaf. The tobacco and cigarettes are being introduced in this country as a speciality saleable by chemists and they are sure to sell readily. The French Hygienic Society, 56 Conduit Street, W., are the consignees.

Sole Licensed Manufacturer—Mr. OSCAR FRIEHMELT.

SOLE CONSIGNEES FOR THE BRITISH EMPIRE:

THE FRENCH HYGIENIC SOCIETY, 56 CONDUIT ST., REGENT ST., LONDON.

PRICES REDUCED.	
CARETTES, Sanitary, fully charged with Coca	2/ per packet of 20.
" " " "	8/ 100.
" " " "	£3 6/8 per 1,000.
" No. 1, moderately charged with Coca.....	2/ per packet of 20; 8/ per 100.
" " " "	£3 6/8 per 1,000.
" No. 2, mildly charged with Coca	1/6 per packet of 20; 6/ per 100.
" " " "	£2 12 8 per 1,000.
No. 1.—Mild Smoking Mixture, 12/ per lb.	No. 2.—Strong Smoking Mixture, 12/ per lb.

FRENCH HYGIENIC SOCIETY, 56 CONDUIT STREET, REGENT STREET, LONDON,

UPON RECEIPT OF A FULL REMITTANCE.

Both the above can be obtained through Messrs. Kemp & Co. (Lim.), Bombay, or direct from the Consignees, the French Hygienic Society, 56 Conduit Street, Regent Street, London, upon receipt of a full remittance.

T. KERFOOT, PHARMACEUTICAL CHEMIST,

MANUFACTURER OF

Medicated Lozenges and Jujubes, GRANULAR EFFERVESCENT PREPARATIONS, SUGAR COATED PILLS &c.

BRITISH PHARMACOPŒIA LOZENGES.

	s.	d.
Acidi Tannici ...	2	6
Bismuthi ...	3	6
Catechu ...	2	0
Ferri Redacti ...	2	0
Ipecacuanhæ ...	2	0
Morphiæ ...	3	0
Morphiæ et Ipecac. ...	3	0
Opii ...	3	0
Potassæ Chloratis ...	2	2
Soda Bicarbonatis ...	2	0

BOILED SUGARS. FINEST QUALITY ONLY.

Aniseed Drops	
Butter Scotch Drops	
Chocolate Drops	
" Tablets	
Cough Drops (Brown)	
" (Pink)	
Effervescing Shetbet Drops	
Extract of Malt Tablets	
Everton Toffee Tablets	
Ginger Drops	
Honey Drops	
Horehound Drops	
Lavender Drops	
Lemon Barley Sugar Drops	
" Twisted	
Ginger Barley Sugar Drops	
" Twisted	
Mint Pennetts	
Musk Drops	
Acidulated Apricot Drops	
" Black Currant Drops	
" Cayenne Drops	
" Cherry Drops	
" Damson Drops	
" Greengage Drops	
" " Tablets	
" Jargonelle Pear Drops	
" " Tablets	
" Lemon Drops	
" " Tablets	
" Lime Fruit Drops	
" " Tablets	
" Magnum Bonum	
" " Tablets	
" Magnum Bonum	
" " Drops	
" Mixed Fruit Drops	
" " Tablets	
" Orange Drops	
" Pineapple Drops	
" " Tablets	
" Raspberry Drops	
" " Tablets	
" Rose Drops	
" Strawberry Drops	
" " Tablets	
" Tamarind Drops	
" Vanilla Drops	
" " Tablets	
Acidulated Drops, various, in	
6d. bottles, 4/ per dozen; also in	
4lb and 5lb bottles.	

DIGESTIVE CANDY.

A pleasant Stomachic 1s. 4d. lb.

ENGLISH BRONCHIAL LOZENGES

Are superior to the American.
They are an excellent Cough
Lozenge, and for the use of
singers they are unique. 3s.
per lb., 6d. boxes 3s. per dozen.

THROAT HOSPITAL LOZENGES.

	s.	d.
Acidi Benzoici ...	3	0
" Carbolici ...	2	0
" Tannici ...	2	6
Althææ ...	2	0
Catechu ...	2	0
Cubebæ ...	3	0
Guaiaçi ...	3	0
Hamatox ...	3	0
Kino ...	2	6
Kramerie ...	3	6
Lactucæ ...	3	0
Potassæ Chloratis ...	2	6
" Citratæ ...	3	0
" Tart. Acid. ...	3	0
Sedativi ...	3	0

JUJUBES.

Delectable ...	2	2
Voice ...	2	0
Magnum Bonum ...	2	0
Black Currant ...	2	0
Liquorice ...	1	4
Glycerine (oval or square)	2	0
" Crystallized ...	2	0
Rose ...	1	4
" Crystallized ...	1	4
Paté de Guimauve ...	2	6
Mixed Fruit, Crystallized	1	4
Chlorodyne, Crystallized	3	0

LAXATIVE TAMARIND LOZENGES.

A pleasant Fruit Laxative of
the best kind. 3s. lb.; 6d. boxes,
3s. per doz.

LOZENGES.

Aniseed Lozenges ...	1	0
" Pipe ...	1	8
Black Currant Lozenges	2	0
Black Currant, Tannin, Catechu, and Cayenne Lozenges ...	2	6

Borax Lozenges ...	2	0
" and Chlorate of		
Potash Lozenges ...	2	2
Calomel Lozenges, $\frac{1}{2}$ grain in each ...	2	0
Do., 1 grain in each ...	2	6
Do., 2 " 	2	9
Do., 3 " 	3	0

Each Lozenge Stamped.

Camphor Lozenges ...	2	0
Cachou Aromat., very su- perior ...	3	0
Cayenne Lozenges ...	2	0
Do., curiously strong ...	2	6
Chlorodyne Lozenges ...	2	8
" No. 2 ...	1	6
Thyme Breath Lozenges ...	3	0
Bouquet Lozenges, No. 1 ...	3	0
" No. 2 ...	2	6
Persian Lozenges, various colours, flavoured with French Essence ...	2	0
Bouquet Lozenges, No. 3 ...	1	6
Red and White Roses, very fragrant, about 90 to oz. ...	2	0
Pectoral Cough Lozenges, $\frac{1}{2}$ grain Morphia in each ...	2	8
Balsamic Cough Lo- zenges, No. 1 ...	2	0
Do., No. 2 ...	1	6
Special Cough Lozenges, contain no opiate ...	1	6
English Bronchial Loz- enges ...	3	0
Diarrhoea Lozenges ...	3	0
Digestive Tablets ...	2	6
" Candy ...	1	4
Gallie Acid Lozenges ...	3	0
Ginger Lozenges, very superior ...	2	0
Gelatine Lozenges ...	1	6
Musk Lozenges ...	2	2
Lavender Lozenges, Rough	1	6
Otto of Rose Lozenges ...	2	0
Paregoric Lozenges ...	2	0
Pepsine Lozenges ...	5	0
Pontefract Cakes ...	1	6
Pyrethrum Lozenges ...	2	9
Rhatany Lozenges ...	3	6
Rhubarb and Ginger Lozenges ...	2	6
Rose Lozenges, Pink ...	2	0
Rose Lozenges (Oval), Red, and White ...	2	0
Santonine Lozenges, 1 grain in each ...		
" 2 grains in each		
" 3 " 		
Soda & Ginger Lozenges	2	0
Sach. Carb. Iron Lozenges	2	6
Sponge Lozenges ...	4	6
Squill & Ipecac. Lozenges	2	6
Tamarind Lozenges ...	2	6

Tamarind with Tan- nin and Cayenne ...	2	6
Tannin and Caye- nne Lozenges ...	2	6
Tolu Lozenges ...	2	0
Voice Lozenges (ov- al) stamped with Tannin, Black Curr- ant, and Cayenne, stamp Voice ...	2	6
Voice Lozenges (ov- al) stamped with Tannin, Black Curr- ant, and Cayenne, stamp Voice ...	2	6
Worm Lozenges	8	0

SILVERED CACOUS.

Own make, coated with Pure Sil-
ver, 5s. per lb., or in 3 lb. Bat-
tles to retail 4d. each, 2s. doz. in
3-dozen cases.

SPANISH JUICE AND PONTEFRACT Cakes.

Own make
Corazzi ... 1s. per lb.
Coriglio ... 1s. per lb.
Free from grittiness, good
fracture, and fine flav-
our.
Pontefract Cakes, 1s. per lb.

THYME BREATH LOZENGE

Contain Thymol, easily
disguised with agreeable fla-
vours, and are a pleasant
odorant for the mouth.
In 1lb
bottles, 3s. 6d. per lb.

VOICE AND THROAT LOZENGE

Australian Red Currant
Lozenges ... 2 6
Black Currant, Tannin,
Catechu, and Cayenne
Lozenges (sm. octa-
gon) stamped with
Voice ... 2 6
English Bronchial
Lozenges, very fine ... 3 0
Tamarind Lozenges ... 2 6
 " and Cayenne ... 1 6
 " Tannin ... 2 6
Chloride of Ammonium
and Black Currant
specific in Bronchitis ... 2 6

WORM CACOUS.

Chocolate, Fruit
very effectual, stamped
with vendor's name, 7s. gro-
ss.
A neat
little Counter Case ... 3 gross
Lots.

KERFOOT'S SUGAR-COATED PILLS.

HAVING perfected the manufacture of SUGAR-COATED PILLS, and believing them to be greatly superior to Pearl-Coated Pills, I shall in future keep in stock and supply SUGAR-COATED PILLS only.

It is not too much to say that SUGAR-COATED PILLS prepared by my new process are simply the perfection of Coated Pills. It is well known that a large Sugar-coated Pill is more easily swallowed than a much smaller Pill uncoated, or even Pearl Coated. A properly-prepared Sugar-Coated Pill, moreover, is attractive to the eye, while it conveys only the most pleasant sensations to the palate. It is the quick solubility of the coating of these Pills which causes them to be easily swallowed, and it is to their rapid solution in either warm or cold fluids that their great superiority is due; for a Pill, however well or attractively coated, fails in activity if it is not capable of being rapidly disintegrated when immersed in a warm liquid.

KERFOOT'S SUGAR-COATED PILLS are coated *without the application of any heat*, and have no resinous substance to impede their solubility; they disintegrate with the most rapidity, even in cold water; their ready solution in the warm fluids of the stomach, and consequent activity, are therefore assured.

All the Pills of the British Pharmacopœia and a variety of others are constantly in stock.

In addition to the ordinary Pills familiar to all pharmacists I have in course of preparation a new set of minute Pills, composed of very active ingredients, each finished Pill weighing one or two grains only, to which the title GRANULES has been given.

Chemist private forms will be prepared with the utmost accuracy, and at a reasonable charge.

In a few days my new list of SUGAR-COATED PILLS and GRANULES will be ready, and I shall be pleased to forward it to any of my customers post free on application.

T. KERFOOT,
MANUFACTURING PHARMACEUTICAL CHEMIST,
Medlock Vale Works,
LONDON ROAD, MANCHESTER.

KERFOOT'S PEARL CACHOUS.

THESE beautiful little lozenges, perfectly spherical in form, weighing about 400 to the ounce, of exquisite flavour and great strength, are the most popular and perfect breath lozenges ever introduced; unlike the ordinary flat lozenges, these little PEARLS have no angles to attract dust and become soiled with a slight handling, consequently they can be carried in the purse or pocket, and are altogether more portable than ordinary lozenges.

The unique appearance and flavour of this novelty quickly ensured a large sale, and its success, as might have been anticipated, quickly brought to the front some worthless imitations, the sale of which can only result in disappointment to all concerned.

KERFOOT'S Pearl Cachous

are the only genuine PEARL CACHOUS: they are not only better looking, but are double the strength of the imitations, and buyers are therefore requested to order the original, and thus ensure a perfect article. They are elegantly put up in attractive one-pound bottles, and are an ornament to any Pharmacy. The following flavours are always in stock—

Rose	Jockey Club
Musk	Violet
Ess. Bouquet	Rondolitia
Lavender	Clove Pink

Price 2s. 9d. per lb. in 1 lb. bottles.

Eight bottles sent carriage free to any part of the Kingdom.

T. KERFOOT,
MANCHESTER.

"Attractive, Effective AND Profitable Advertisement."

With all Orders for **£1. 2s. 6d.** net we shall present a **LARGE SHOW CONE**, 18 inches high, made in "TERRA COTT". This is a very attractive window ornament, and quite novel, the Model representing one of our No. 161 Cones with the top off, and the Cone showing a splendid white in striking contrast to the red foot.

All our Cones are guaranteed Pure Menthol, and our Prices are the **LOWEST** in the market, if **SIZE** of Cone is taken into consideration. Our Boxes are all branded, and buyers may have their own names on for quantities of five gross free of charge; the Boxes do not then bear **OUR BRAND**.



No. 202.



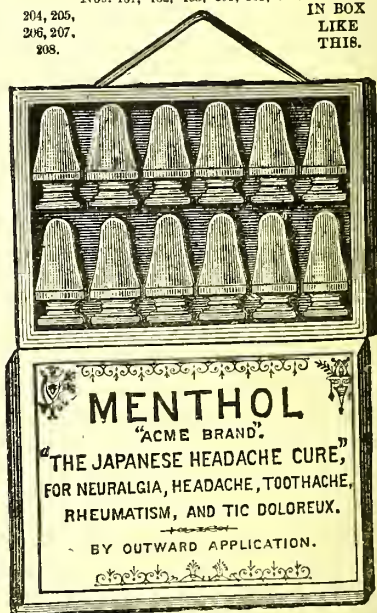
Nos. 203, 205, 206.



Nos. 98 & 163.

Nos. 161, 162, 163, 201, 202, 203,
204, 205,
206, 207,
208.

IN BOX
LIKE
THIS.



No. 200.

Importers, Exporters,
and the Home Trade,
please keep this page
for reference.



Nos. 89, 90, and 99.

No. 201
and 201B.

No.	Per dozen	Size
88. Hard Wood Boxes, Pedestal Shape	2/6	1/
89. Nickel Screw Capped Bottles	4/6	1/
90. " " " "	3/8	9/7.
92. " " " "	2/6	6d.
161. Boxwood Boxes, Acorn Shape	4/2	1/
162. " " " "	3/11	1/
163. Vegetable Ivory, Acorn Shape	5/0	1/
200. Boxwood Boxes, Pedestal	3/0	6d.
201. " " " "	3/11	1/
201B. " " " "	3/11	1/
202. " " " "	3/10	1/
203. " " " "	3/11	1/
204. Vegetable Ivory, Castle Shape	5/10	1/
205. Boxwood Boxes, Cone Shape, each in box	3/3	6d.
206. " " " " as No. 203, Large Size	4/8	1/
207. " " " " Draughtsman Shape	4/11	1/

A Sample Box containing one each of above, 8; by post 9.

In ordering through Merchants and the Wholesale Trade, from whom our preparations may be had at above prices, please state distinctly

5 per cent. Discount for
Cash with Order.

"ACME BRAND" AND HOCKIN'S.

Special Quotations
Large Quantities

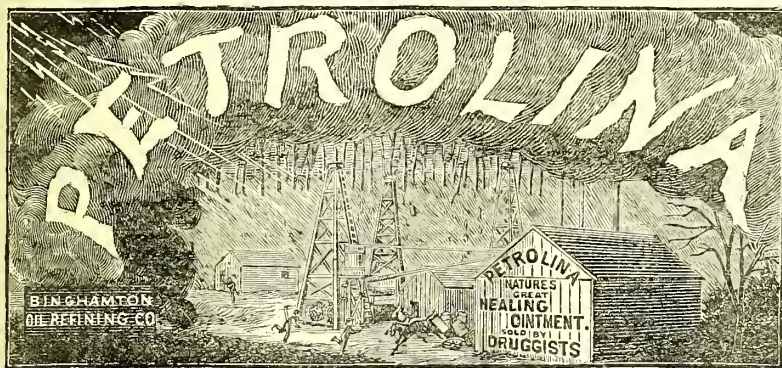
MANUFACTURED BY

HOCKIN, WILSON & Co.

38 DUKE STREET, MANCHESTER SQUARE, LONDON. W.

THE ONLY PERFECT PARAFFINUM MOLLE B.P. IS THE BINGHAMTON OIL REFINING CO'S.

PURE: SWEET: NEUTRAL:
Non-oxidizable, unchangeable,
affected by neither time
nor temperature.



Manufactured without the aid of
Acids or Alkalies from Crude
Petroleum only.
Made in two consistencies, No. 1 from
115° to 120° M.P., No. 0 from 95°
to 100° M.P.

Casks of 1 cwt., Kegs of 1, $\frac{1}{2}$, and $\frac{1}{4}$ cwt., and patent self-opening Tins of 14, 5, and 1 lb.
A further reduction has been made in the price of "PETROLINA," which is now as cheap
as any of the inferior imitations. Chemists will therefore consult their best interests
by ordering only "PETROLINA." May be had of all wholesalers.

PRICE LISTS AND SAMPLES FREE ON APPLICATION TO—
E. A. DE PASS & CO., Sole Agents, 3 Coleman St., LONDON, E.C

THE MOST
PROFITABLE LINE
IN THE MARKET.

"PEACH BLOSSOM" SOAP
has all the appearance of
the usual Tablets at One-
third the Price.

Now Vastly Improved in Quality.

"PEACH BLOSSOM"

Larger Tablets, Finer Perfume, and Most
Elegant New Boxes and Wrappers.

Handsome,
Highly Transparent,
Delicately Perfumed, and
Extremely Low in Price.

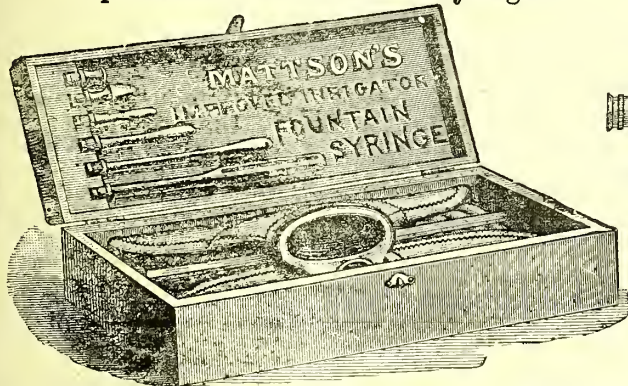
New style of Wrappers
and Boxes.

E. A. de PASS & CO.,
SOLE AGENTS,
3 Coleman Street, E.C.

MATTSON RUBBER CO., OF NEW YORK.
Manufacturers of HIGH-CLASS SYRINGES, ENEMAS, & SURGICAL RUBBER GOODS.

Specialities in Fountain Syringes.

Mattson's Patent
Vaginal Spray.



Mattson's Patent Powder
Projector for
the Treatment of
Catarrh, &c.

Enema the world.

New Catalogue of eighty pages, fully illustrated, and REDUCED Price List, just issued, and will be sent on application.

LONDON OFFICE—3 COLEMAN STREET, E.C.

Messrs **E. A. de PASS & CO.** undertake the shipment, from New York direct to any foreign port, of
American Medicines, Drugs, and Druggists' Sundries. Quotations given f.o.b. New York or free London.

E. A. DE PASS & CO., GENERAL AMERICAN COMMISSION MERCHANTS,
Broad Street, NEW YORK, and 3 Coleman Street, LONDON, E.C.

KEPLER SOLUTION.

The London *Lancet*, referring to the Kepler Solution (May 22nd, 1886), reports:—"Pharmacologists and practical physicians have long desired to obtain a true solution of cod liver oil in malt, but the difficulties in the way of its accomplishment were found to be so great that all attempts to manufacture such a product were temporarily abandoned. The question has, however, at last been solved. . . . This new preparation is known as the Kepler Solution of Cod Liver Oil in Malt. . . . Its superiority as a therapeutic agent, especially in cases of wasting disease, is obvious."

The *British Medical Journal* reports:—"The Kepler Solution is a great advance on anything hitherto attempted in this direction. . . . The production of a solution of cod liver oil in malt is a great advance, and marks an epoch in the history of rational therapeutics."

Prof. GODWIN CLAYTON states that his "observations and results [detailed before the Society of Analysts] render it impossible for him to arrive at any other conclusion than that the Kepler Mixture of Cod Liver Oil in Malt Extract is *not an Emulsion*, but that its constituents are in a condition of more intimate admixture, viz., *that of Solution*."

If fat be in a molecular condition in the body, why may it not be so outside of the body? The objections adduced against the Kepler Solution might be easily raised against other solutions. According to all known methods of determination, the cod liver oil in the "Kepler Solution" is unequivocally dissolved. Those most competent to express a reliable scientific opinion, state positively that such is assuredly the case. When the article from which the last paragraph is taken was read before the Society of Analysts, many distinguished scientific chemists were present, such as Prof. Dujardin, who agreed, in the discussion which followed, that the cod liver oil is dissolved in the Kepler Extract of Malt.

Every possibility of error has been taken into account, and the fact that the oil is dissolved is pronounced incontrovertible. No emulsion of cod liver oil (syrup and oil, &c.) ever made is comparable in any way with the Kepler Solution of Cod Liver Oil in Malt.

Truly the Kepler Solution "*is an ideal form for the administration of fat*."—*British Medical Journal*.

Besides this, "It is the most palatable and easily digested of any form of cod liver oil."—*Medical Press and Circular*.

The Kepler Solution and Kepler Malt Extract supplied to the Trade in bottles containing $\frac{3}{4}$ lb. and $1\frac{1}{4}$ lb. at 2s. and 3s. per doz., subject to usual discount. Retail prices 2s. 6d. and 4s. Supplied by all wholesale houses throughout the Kingdom.

Burroughs, Wellcome & Co., Snow Hill Buildings, LONDON, E.C.

Progress in Pharmacy.

LONDON

MARCH 17.

[1888.

PINOL. The pure essence or volatile oil distilled from the needle-like pills of the *Pinus Pumilio*, found growing in the perpetual snow of the ALPS, is one of our latest novelties. It is distinguished from the common pine oils by superior medicinal and salutary properties, and by its exquisite refreshing fragrance. It possesses remarkable antiseptic properties, destroying disease-germs, and has been found most efficacious in the treatment of laryngological and pulmonary diseases and



Pinus Pumilio.

catarrh. the treatment of gout and rheumatism the baths of Extract of Pinus Pumilio, with subsequent applications of pinol, are considered by many to be a cure. The baths of Ebnburg are now world-famous, and we hear that an institution of a similar character is shortly to be opened at Farnborough. The Burroughs Chlor-Ammon-Inhaler is used for inhaling Pinol, 15s. and 24s. doz.

EXTRACT PINUS PUMILIO.—This extract, prepared from the needle-like shoots of the Pumilio Pine, has about the same density and appearance as treacle. It exhales a delightful fragrance, for the redolence of the Pumilio is sweeter and more delicate than that of any other pine. The Extract contains decided medicinal properties, and is very extensively used for Baths, Liniments, Ointments, and Plasters, 9s. doz.

Baths.—The Pumilio is so soluble in water that the extract is soon dissolved. To prepare a pine bath, pour the water of the desired temperature into a bath of usual size, and empty into it a bottle of Extract of Pumilio (Burroughs). A Pumilio bath may thus be taken several times a week, and is a most grateful restorative to the feeble and those in poor health. It is very refreshing, and for anæmic women, and those who suffer from rheumatism, gout, lumbago, sciatica, or neuralgia.

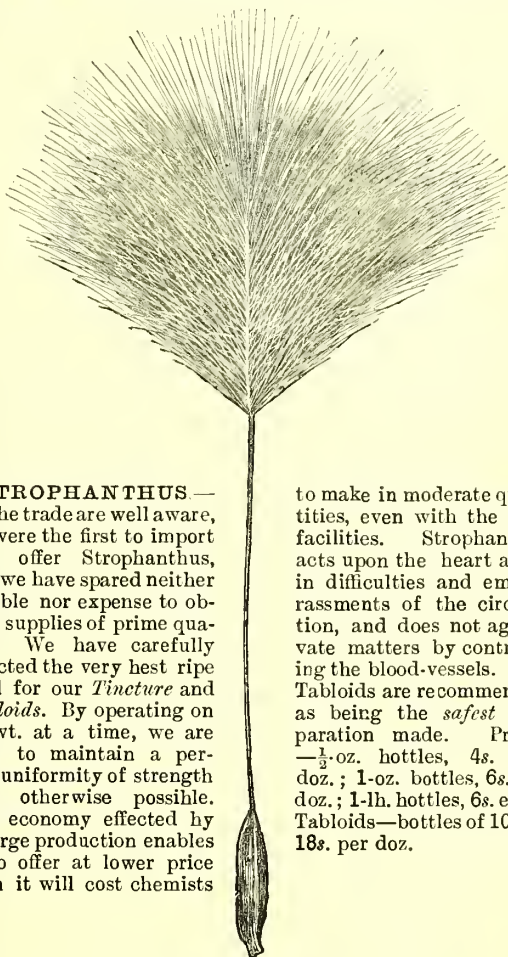
LANOLINE.—Lanoline is the purified fat obtained from sheep's wool, and is natural to the hair and skin, and is absorbed there at once. It is the best basis known for ointments, salves, &c. Of desirable consistence, it does not melt below body heat, and does not "run" like ordinary ointments. Being homogeneous and devoid of hard crystalline bodies and free fatty acids, it is soothing and acceptable in the most irritable conditions of the skin. It is perfectly miscible with water and all medicaments, is preservable, slightly tacky and adhesive, and perfectly bland and soothing. Lanoline has recently been much improved; it is much lighter in colour and free from odour. We supply also an Anhydrous Lanoline, 1 lb. 3s. 6d., 7 lbs. 3s. 3d.

LANOLINE POMADE.—Hair anointed with this presents a shiny, greasy gloss, and does not stain the hat or

anything else that comes in contact with it, for Lanoline Pomade is absorbed at once. It soon makes the hair smooth, silken, and strong, and after employing it a little time the scalp becomes perfectly healthy and free from dandruff, 14s. doz.

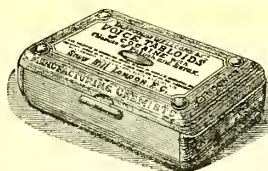
LANOLINE TOILET SOAP.—Ordinary soaps often cause pimples, blotches, and sores on the face, and prevent eruptions already formed from healing. They remove the fat and dry the skin, so that this tissue becomes hard, inelastic, and rough, and loses its natural colour. Lanoline Toilet Soap is made with Lanoline. Lanoline, being the natural fat of the skin, is acknowledged by dermatologists to be the very best preservative of this tissue, restoring its soft, pliable, and elastic nature, and healthful surface. The process of its manufacture precludes the possibility of adulteration, as with rosin, &c., and affords a most superior product, 8s. doz.

LANOLINE COLD CREAM.—For the toilet. This is emollient, protective, and healing. It supplies the skin with a "cream" natural to it, and is highly praised for abrasions, mucous patches, herpes, chapped hands, roughness and hardness, &c., 14s. doz.



STROPHANTHUS.—As the trade are well aware, we were the first to import and offer Strophanthus, and we have spared neither trouble nor expense to obtain supplies of prime quality. We have carefully selected the very best ripe seed for our *Tincture* and *Tabloids*. By operating on 2 cwt. at a time, we are able to maintain a perfect uniformity of strength not otherwise possible. The economy effected by a large production enables us to offer at lower price than it will cost chemists

to make in moderate quantities, even with the best facilities. Strophanthus acts upon the heart alone in difficulties and embarrassments of the circulation, and does not aggravate matters by contracting the blood-vessels. The Tabloids are recommended as being the *safest* preparation made. Prices— $\frac{1}{2}$ -oz. bottles, 4s. per doz.; 1-oz. bottles, 6s. per doz.; 1-lb. bottles, 6s. each. Tabloids—bottles of 100 at 18s. per doz.

**VOICE TABLOIDS.**

—These very beautiful little discs, containing Potash, Borax, and Cocaine, are now used by the leading singers and public speakers throughout the world. One dissolved in

the mouth will quickly remove huskiness or hoarseness, and give a clear silvery tone to the voice. See full list of compressed drugs on following pages (1s. and 2s. Packages).

HYPODERMIC**TABLOIDS** we now

prepare by an improved method; our new machines enable us to graduate the pressure sufficiently to insure cohesion, and yet leave the tabloids in a highly soluble condition. They dissolve readily in a few drops of water upon being crushed by the aid of the small glass mortar and pestle which we supply for the profession.

These Hypodermic Tabloids offer great advantages over the ordinary solutions, owing to their *permanency*, *compactness*, and the *perfect accuracy* which is attainable in treating large quantities of material at a time.

Practitioners can easily carry in an ordinary hypodermic case from six to twelve varieties of these tabloids, together with the syringe, mortar, and pestle.

Hypodermic Tabloids of Cocaine and other alkaloids usually employed in hypodermic medication have now almost universally superseded the old plan of solutions, which were liable to irritating and poisonous fungoid growths. The *Lancet*, after thoroughly testing them, declares that these tabloids "produce no irritation, and give the most satisfactory results."

THE HYPODERMIC POCKET CASES are described by a medical journal as a "powerful armoury" in fighting disease. Most valuable alkaloids are exhibited in exactly divided doses, and will dissolve immediately in a few drops of water. Greater exactness is obtained by the preparation of drugs in this form than would be possible by any other method. The small pocket cases in which they are supplied, with syringe, needles, mortar and pestle, &c., are now well known to the medical profession, most of whom are provided with them.



Vinaigrette style, crystal glass oval bots., 4s. 6d. per doz.

TABLOIDS OF COMPRESSED DRUGS.—Some of these Tabloids are intended for their local effect upon the throat, as Chlorate of Potash, &c., and are compressed very hard and dissolve very slowly, while some are for internal administration, as Quinine, Cathartic, etc., and are lightly compressed, and dissolve far more readily than pills, which are made, of course, with an excipient.

TABLOIDS OF COMPRESSED CHLORATE OF POTASH (Exact

size.) Five grains in each. For catarrh, weak voice, hoarseness, sore throat, laryngeal and bronchial affections, and



Beautifully graven white metal boxes, silk label, 4s. per doz.

ulcerative and other diseases of the mucous membrane of the mouth.

The *Medical Press and Circular* says:—"On account of their very small size one may be easily retained beneath the tongue while using the voice. Chlorate of Potash is an agent of acknowledged value in diphtheritic sore throat, and inflammation of the mouth and throat induced by a depressed state of the system. It relieves hoarseness, and in many cases of fetid breath proves an efficient corrective."

A single Tablet placed in the mouth a few minutes before using the voice will remove any slight huskiness and irritation there may be, restore the normal secretions, and afford clearer and richer tones. Supplied in beautifully graven

white-metal boxes, with blue silk labels, 4s. per dozen. Chlor. Pot. and Borax, same style, with pink silk label 4s. per dozen.



QUININE TABLOIDS (1, 2, 3 & 5 gr.).—The Compressed Soluble Quinine are now prescribed by the leading physicians of Europe, in preference to the form of the drug, in the treatment of fevers and cases in which Quinine is indicated. They dissolve on the system quicker than ordinary pills or powders, are easier to swallow, and can be dispensed by the same price that they charge for powders. 1 gr. 36 for 1s., 100 for 1s. 9d.; 2 gr. 24 for 1s., 100 for 2s. 9d.; 3 gr. 24 for 1s. 6d., 100 for 3s. 9d.; 5 gr. 24 for 1s., 100 for 5s. 6d.

TABLOIDS OF COMPRESSED TRI-NITRINE.—"Tri-nitrite is the new name for nitro-glycerine, the general adoption of which has been advocated by Beaumetz, Huchard, and other Continental observers. Its occurrence in prescriptions is less likely to alarm the susceptibilities of delicate, nervous, or highly-strung patients more commonly employed term. The tabloids of tri-nitrite are made with sugar of milk, which is adapted for the purpose, and dissolves much more rapidly than any of the ordinarily employed excipient. Made trial of these new tabloids, and find that they are admirably in cases of angina-pectoris, giving prompt relief to the paroxysms of pain. The compound tabloids, containing, in addition to nitro-glycerine, amyl, menthol, and capsicum, constitute a valuable preparation, and will in all probability speedily replace the formula."—*LANCET*, April 24, 1886.

In full doses Tri-nitrite accelerates the heart's action, dilates the arterioles, flushes the face, and produces headache. Too large a dose may cause languor, nausea, and occasionally even temporary unconsciousness.

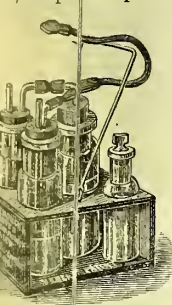
The Tabloids of Compressed Tri-nitrite are supplied in bottles of 25 and 100 at 7s. and 18s. doz.

COCAINE IN TOOTHACHE.—While Cocaine has not yet become general, and incredulity abounds in some as to its easily demonstrable action, reports have been made where the most severe toothache was treated by introducing into the dental cavity a piece of cotton. By painting the gums the sensibility is suspended, and the pain is lessened. Some dentists instruct their patients suffering from acute pain in the roots of a tooth to place a Cocaine Tabloid enclosed in a piece of absorbent cotton. By injecting it into the side of a tooth, extraction may be performed with a particle of pain. 12s. per doz. tubes.

THE TABLOIDS OF POTASSIUM BICARBONATE (5 gr.) and the **SODIUM BICARBONATE** (5 gr.) are far easier to take than solutions or pills.

allowed without the taste of the alkali being perceived.
doz.

BEST TABLOIDS, for preparing Fehling's Solutions
the Rapid and Accurate Estimation of Sugar in the
of Fæties.—These Compressed Chemical Tabloids
sent the sol constituents of the well-known test solution
thing, which is that most frequently employed. By the
of our very simple and complete apparatus and appliances,
ed and constructed especially for the purpose, we are
ed to secure a degree of precision and accuracy in
preparations unattainable by ordinary means. The
stages in stability, saving of time, and calculations
vious, and after a single trial the Tabloids will recom-
themselves at once to physicians, chemists, and others
sted in the analysis of urine, syrup, &c. Supplied in
ts, complete 18s. per doz.



is perfectly neutral and causes no irritation whatever.
Terebent and other medications may be employed
his inhaler. 7s. 6d. each.

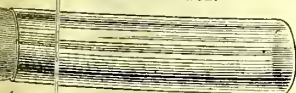
port from FRANKS, Esq., M.D., Dublin University,
S.I., Suron to the Adelaide and Throat and Ear
tals, &c.:

is the best Inhaler I have ever used, and I think I have
all the different Chloride of Ammonium Inhalers
to devise.

Medical Press and Circular says:—"The Burroughs
er is an ingenious and convenient device for inhaling
der of Ammonium fumes; by its use the Chloride of
onium is brought into more intimate contact with the
is surface of the passages of the nose and throat than
any other form of inhaler. It should be used by all who
ny predisposition to catarrh, congestion of the lungs,
monary tubles."

FAIRCHILD DIGESTIVE ENZYMES.—No
e have ever introduced has met with such immediate
contained appreciation. Imitators have, as they are
o do, followed in our wake with inferior products, en-
uring to reap profit from the reputation of our goods.
duced prices place these, the best pancreatic and pepsin
ations in the market, at a price lower than others of
lity.

Zymine (Extractum Pancreatis, Fairchild) is a dry
r, containing in the most active and concentrated form
Enzym of the Pancreas, viz., Trypsin, Amylopsin,
in, and the Rennet Ferment. It will digest all kinds
d. Five grains, with a little soda, will sufficiently
ise a pint of milk in a few minutes; 30 grains, with a
peptonise 4 oz. of beef, producing a con-
ted, nutritious, and delicious beef-tea. $\frac{1}{4}$ oz. and 1 oz.
d 60s. doz. Zymine Tabloids, supplied in bottles
and 100, 18s. and 48s. doz.



Zymine Peptonising Powders (Fairchild) in glass
one be peptonises a pint of milk in twenty
s) is the most convenient form for preparing peptonised
rnels, custards, blanc-manges, etc. The advan-
of these powders are that, when everything is taken into
t, they simply stand alone in the world of ferments for
ising milk for invalids, dyspeptics, the aged, and
s. Speaking of Fairchild's discovery of Zymine, Dr.
g said "I feel satisfied that the question of infant
is solved." 18s. per doz. boxes.

PEPSIN IN SCALES (FAIRCHILD).—This is the
first and only Pepsin ever offered absolutely free from Starch,
Milk, Sugar, Acids, Artificial Peptone, or any extraneous sub-
stance whatever. One grain of Pepsin (Fairchild) in Scales
or Powder will digest 1,000 grains of albumen in six hours.
By experience and constant experiment we have steadily
refined and improved this product, and now present the Peptic
Ferment in a state of marvellous activity, isolated from all
reagents or impurities, and of demonstrated uniformity. We
do not attempt to secure profit or cheapness of product by
treating the entire stomach, and thus (or by any other expedi-
ent) obtaining the admixture of a Peptone or any albumi-
noid that is separable from the Peptic Ferment.

Pepsin (Fairchild) supplied in the form of scales for making
solutions and general manufacturing purposes, in the form of
powder for dispensing, and in tabloids (1 grain each) for easy
administration to fastidious patients. The Fairchild Pepsin
is rapidly superseding the ordinary pepsins, many of which
are utterly worthless. Fairchild's Pepsin is no more expensive
than most of the common pepsins, though it possesses many
times the strength and activity. $\frac{1}{4}$ -oz. and 1-oz. bots. at 20s.
and 60s.

**THE KEPLER EXTRACT OF MALT AND
KEPLER SOLUTION** have both gained continually in
favour with the medical profession and the public, and are still
preferred to any other similar products. Throughout the world
we have been accorded the credit of our discovery of a process
for dissolving Cod-liver Oil in Kepler Malt, and the im-
portance of the discovery is fully recognised.

The *Lancet* (London) reports:—"Kepler's is the best
known, and in this country the largest used Extract of Malt.
It is as distinct an advance in therapeutics as was the intro-
duction of cod-liver oil. It is one of our best remedies for
atonic dyspepsia, and is undoubtedly useful in consumption
and other wasting diseases."

The *London Medical Record*, January 1885, says:—
"Kepler Extract of Malt is undoubtedly the best, the richest
in diastase, and the most largely used. We have witnessed
the process of manufacture, have tested it, and are satisfied
that it is not only unsurpassed but unequalled. It is the
Extract of Malt which every physician prescribes."

The *Medical Press and Circular* says:—"The Kepler
Extract of Malt is very delicious to the taste, and has been
found by analysis to be exceedingly rich in diastase, and, con-
sequently, is a valuable digestive agent. The Kepler Malt,
combined with cod-liver oil, is the most palatable and easily
digested of any form we have yet seen for administering
cod-liver oil." 22s. and 38s. doz.

THE KEPLER COD-LIVER OIL.—This is the
virgin drippings from the choicest selections of livers of
freshly-caught, healthy, Norwegian cod—the true species
(*Gadus Morrhue*). This beautiful cod-liver oil is clarified
and prepared upon the shores of Norway. It is expressed
by a new and original process, the oil being kept meanwhile
cold. All rancid and unsavoury principles are eliminated,
and the flavour is so extremely delicate that this oil may be
easily administered to patients who refuse to take the ordi-
nary preparations of cod-liver oil in the market. 16s. and
24s. doz.

**CAFFEINE HYDROBROMATE (GRANULAR
EFFERVESCENT, BISHOP).**—This new preparation
is in many cases preferred by the profession to the Citrate of
Caffeine also made by Mr. Bishop. Both of these admirable
preparations are now every day prescribed in headache and
neuralgia. 20s. doz.

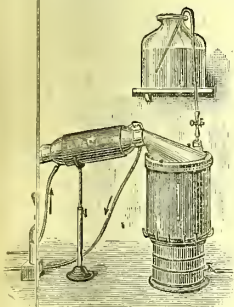
Bishop's Granular Effervescent Extract of Nux Vomica is
a most agreeable and efficient preparation, and is gaining in
popularity.

ANTIPYRIN TABLOIDS.—This new antifebrifuge is
a chinoline derivative, which has now been before the profes-
sion for some little time. It is claimed by high authorities to
increase arterial tension, retard the pulse, the rhythm being
regular, to quicken somewhat the respiration, the type
remaining uniform, and to act on the cardiac nerve appa-
ratus. It is said to increase reflex action, and diminish even
the normal temperature from $\frac{1}{2}^{\circ}$ to 2° Fahr.—the depression
being the more marked the shorter the intervals between

sherbet. marching, drop a compressed 'Tablet' of
water" as prepared by these chemists in your cup of water."

our medicine and well prepared. Messrs. Burroughs &
will equip you with tropic medicines in chests or cases, with
last you one month or ten years. They have sought the best
ice, and seem disposed to study the special needs of
Central, Northern, or Southern African traveller, soldier,
missionary, have informed them of a few diseases such as
under my observation, and they have prepared such medi-
cine been tried during the last seventeen years of my African

"REMINGTON" PHARMACEUTICAL
invented by Professor J. P. Remington, Philadelphia
Pharmacy, U.S.A.). A great improvement over any
device, by its greatly increased condensing power
of action together with its simplicity, economy,
and facility for general laboratory work.

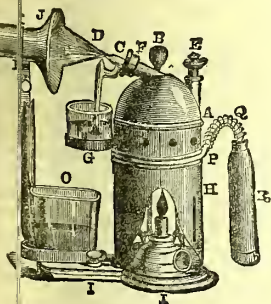


n Tinned Copper, 7L.; price in Nickel-plate, 9L.;
ices for larger Stills. Subject to usual discount.
-A Copper Wire Basket, for holding Herbs, supplied
Still, price 5s.

It shown in the cut is the NEW FORM, the Still body
over three gallons; the CONDENSER has seven
tubes surrounded with the cold water, presenting
ous cooling surface, and thus securing most rapid
ion. The cold water is introduced by a rubber tube
drant or bucket of water placed higher than the
carried off, it becomes warmed by another tube
ted by the arrows. BY THE SYPHON ARRANGE-
OWN IN THE CUT, it is possible to feed the Still
servoir while distillation is in progress, thus a three-
ill may be used, where, otherwise, a much larger
d be necessary.

It may be used into a kettle partly filled with water,
used as a WATER BATH, or a shallow dish with flat
h accompanys the Still may be placed between the
ring band and clamped securely.

CODMAN & SHURTLEFF COMPLETE
ATOMIZER, for treatment of diseases of the
lungs by means of atomized Pinol, Pure Terebene
(oil), and other medications.



The Complete Steam Atomizer. For Inhalation,

me complete is used in connection with this appa-
h particular reference to the quality of its perform-
under no circumstances does it throw out little jets

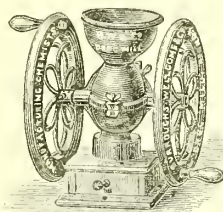
For Tartaric Acid or Cream of Tartar answers same purpose.

of hot water to frighten or scald the patient. The word is
also appropriate when used to describe the apparatus itself,
as it is the result of much care in arrangement, and of ex-
pense in the machinery employed for its construction. On
account of its convenience, durability, portability, compact-
ness, and cheapness (in the best sense of the word), we think
it adapted to come into almost universal use by physicians
for their patients, and by patients at their homes.

15a, 22/6 each; 15b, 26/3 each; 15c, 36/- each. Subject to
usual discount.

BURROUGHS, WELCOME & CO'S DRUG MILL.—
Constructed on an improved principle. Cutters removable
for inspection or cleaning.

This Mill can be regulated to grind to any degree of fine-
ness or coarseness required, and by the mere turning of a
thumb screw can be opened and the cutters removed in a
minute.



The form of the Cutters is designed so as to crush and re-
duce to powder almost any pulverisable substance effectually
and quickly, at the same time that the cutting edge is never
destroyed, thus saving the expense of recutting, incident to
the ordinary Mill.

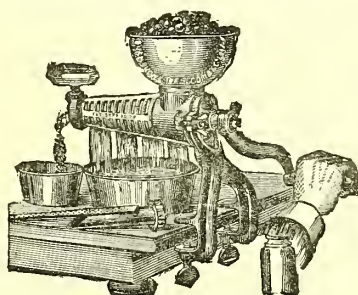
The cutters always keep their edge, and never require re-
toothing; if broken they can be replaced at a trifling cost.

In this Mill ALONE there is no danger or loss resulting
from grinding any number of different substances in succes-
sion, because between each operation the Mill can be opened,
the cutters taken out, cleaned, and replaced with the greatest
ease.

Professor Maisch, Philadelphia Col. Pharmacy, U.S.A.,
says:—"The best Mill that has been devised. One of the
prominent advantages is the facility with which the internal
working parts can be viewed by simply turning one screw."

PRICES.—Plain (3a), 36s; (4a), 54s.; (4½a), 90s. Orna-
mented (3a), 45s.; (4a), 65s.; (4½a), 100s. Subject to usual
discount.

BURROUGHS, WELCOME & CO'S TINCTURE
PRESS, specially adapted for Coarse and Fibrous Drugs.
The principle upon which this Press operates is, that the
drug is acted upon in a continuous thin layer, which is
forced forward by each revolution of the screw into smaller
and smaller space, the leverage yielding a force so powerful
as to extract almost the entire moisture, delivering the
residue of suitable drugs with almost crisp dryness, and,
as experience has shown, it saves a greater amount of
Tincture (very important in the case of Tincture of Opium
and other expensive drugs) than even the most powerful
Hydraulic Press. So thorough is its action in this respect
that the "Chemists' Journal" has humorously remarked



of it that "it will almost squeeze blood out of a turnip." One
firm informs us that they have saved at least 20% more in
three months, by the use of this Press, than they could se-
cure by using any other. The working of this Press being

continuous, either small or very large quantities may be operated upon at one time, and much more rapidly than in any other form of apparatus.

The fact that drugs require handling but once, that the use of press cloths is done away with, and that the operation is continuous, shows a great advantage in this Press over any other.

CHARLES SYMES, Ph.D., says :—"This is an entirely new departure, inasmuch as in the ordinary press either a lever or screw operates to *produce the pressure*, whereas in this ingenious arrangement the screw is itself the press. It has been used by our firm for pressing a variety of substances. For the marc of tincture of opium, orange peel, cardamoms, hops, squills, artichoke, lobelia, and such like substances,

nothing better could be desired for a continuous layer operated on is much than any other press, and the force applied is uniform. When commencing to feed the press the end should be turned well up, so as to be widely open as possible. As soon as the material has passed through, turn down the screw so as to compress the material, and recover the largest amount of tincture possible, with being able to work the handle well. It is here that experience and judgment determine the success of the operation."—*Chemist and Druggist*.

Price 13s. each, subject to usual discount.

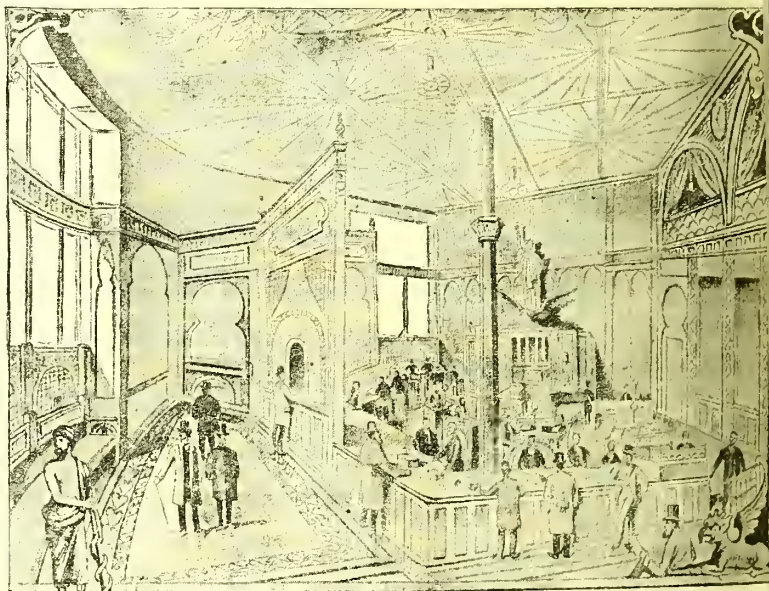
MESSRS. BURROUGHS, WELLCOME & CO. AND THEIR BUSINESS.

[Reprint from THE CHEMIST AND DRUGGIST, January 23, 1888.]

AMONG the exponents of modern pharmacy no firm in this or any other country has acquired a more world-wide reputation than the one which, under the style of Burroughs, Wellcome & Co., has become familiar to every reader of these pages within the last ten years. We have a number of old-fashioned friends (who will, we hope, be ever with us) to whom the new-fangled notions of this corner of the nineteenth century are an abomination and a terror, and to whom these pharmaceutical strivings after novelty and perfection in the manipulation of the raw material of the

to say that in carrying out their plans they have acted with the utmost loyalty to their pharmaceutical colleagues. They have found it possible to create an entirely new class of pharmaceutical products, and in what seemed to be a sufficient manner they have brought this about by methods which are sufficiently novel to be worthy of record in the pages of the *Chemist and Druggist*.

Mr. S. M. Burroughs, who is a graduate of the University of Pennsylvania, came to London in 1879, and soon extended his operations in other parts of the world. He was joined in 1881 by Mr. H. S. Wellcome, who was also a graduate of the University of Pennsylvania, the business established by



INTERIOR, BURROUGHS, WELLCOME & CO.'S OFFICES.

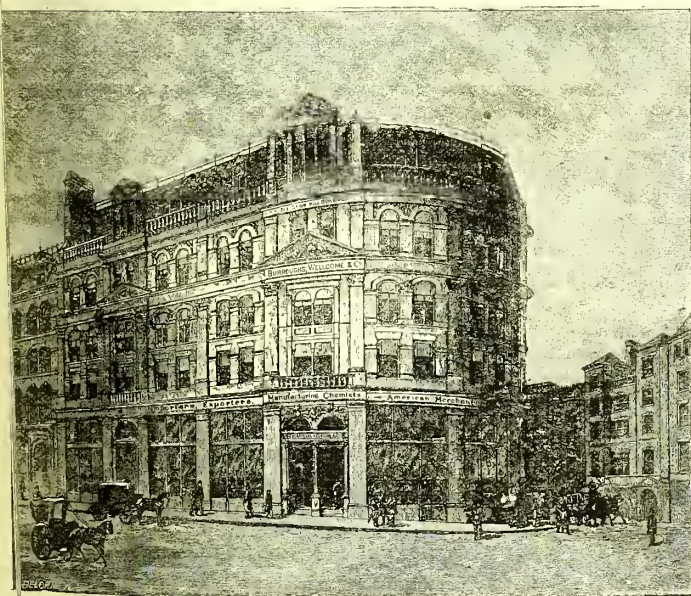
medical armoury have an odour of anything but scientific sanctity. To them the introduction of a new medicine or a new form of an old medicine is a solemn event which should only be undertaken with due regard to all medical and pharmaceutical proprieties, as they understand them. Progress by means of research laboratories or properly incorporated societies, and after methodical discussion by recognised authorities, is in their view the only genuine article, and the intervention of commercial enterprise, or of Frenchmen, Germans, or Americans, seems to them to be an uncalled-for interference with the natural order of things.

But these gentlemen speak too late. Enterprise in pharmacy is the order of the day. The new generation of medical practitioners are eager for all the aid that skilled pharmacy can give them, and London is the market in which the best men win, regardless of nationality. Messrs. Burroughs, Wellcome & Co., since their establishment here, have set themselves not only to meet, but rather to anticipate, the demands of the medical profession, and it is fair

considerable importance. The partnership of these two men with an astonishing amount of energy and enterprise, clearly apprehending the wants of the medical profession, and with the means and willingness to supply agencies from some of the best of the world, introduced specialities of their own. They were before medical men and pharmacists in a most lavish style, but the firm never sought to influence the profession except through the regular professional channels. They won the confidence of a large number of doctors, and we suppose, has contributed in no inconsiderable degree to the remarkable development of their business. Some time ago their large works at Watlington, near Oxford, occupied considerable part of the space occupied by the Kepler Extension, and the product has been for some years owned and controlled by Messrs. Burroughs, Wellcome & Co. They have also, as we have alluded to the artistic beauty of their imposing offices at the corner of Holborn

ed. These are unique in the business of pharmacy. deserve a more detailed description. The building is constructed of red brick with stone facings, the pillars being Corinthian capitals. The entrance is between pillars of Peterhead granite, with size and glory elaborately carved. So far the building bears the impression of the art-revival which much to beget for the better the appearance of the building during late years; but it is only when we see that we get an idea of how much more fully has influenced American art. The internal arrangements were all designed by Mr. Wellcome, and executed by the direction of Dr. Christopher Dresser, the eminent architect of Sutton, by English workmen. The woodwork is American. The floor of the vestibule is made of oak with pictorial insertions representing the history of the industry. The vestibule is very wide—too large, for an entrance to an office—but this has been designed to throw across it an imposing screen of walnut wood, with a door at the right-hand end. The screen is faced in with bevelled plate-glass, the early treatment, and its furnishings are made of mahogany. The windows, of which there are four, are of three-part wood screens, quaintly carved on the top, and composed above of intricate Moorish or

which harmonise beautifully with the dark unpolished walnut. The office furniture, chiefly consisting of writing-tables and a large inquiry table, are uniform in design with the screen and with the chairs and settees, which are upholstered in alligator hide; they form excellent specimens of art furniture. The gangway is controlled by a ponderous gate of hammered copper, a material which harmonises so well with the wood-work that it is also used for paper-weights, twine boxes, and other office utensils. The whole appearance of the office is rich and artistic. It strikes one that it has been fitted regardless of cost, but there is not a pennyworth about it, even the statue of Liberty (modelled, we are told, by Bertholdi's own hand), nor the American eagle standing on the safe, which could be spared. Below the office are two basement floors. The lower one is used partly as an engine room, the engine providing power for the "lifts" and machinery of the printing department, and partly as a carpenters and mechanics' shop. The floor over this is occupied as a packing-room for the home trade, and affords space for a dozen packers to work in. These and other floors are kept thoroughly aired by means of a Blackman's air-propeller, which is connected with an air-shaft passing through the whole building. All the floors are connected by means of a spiral iron staircase, and a "lift" for heavy goods. Ascending the staircase



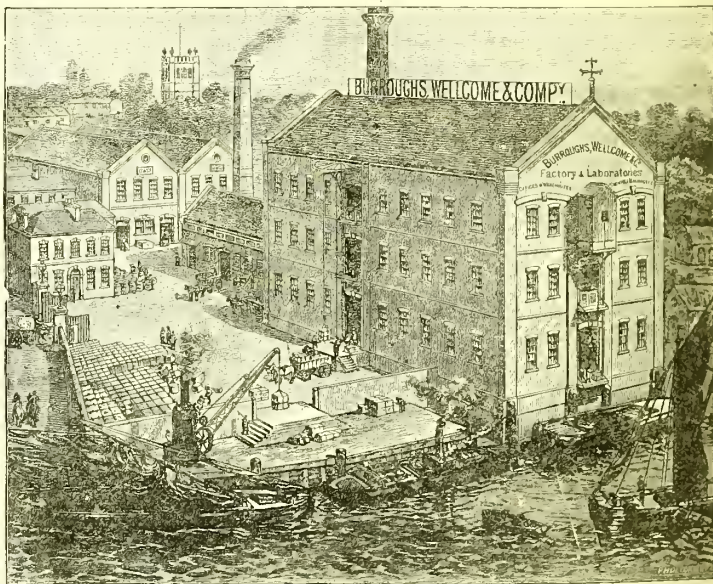
NEW HILL BUILDINGS: BURROUGHS, WELLCOME & CO.'S OFFICES AND WAREHOUSES, OCCUPYING SEVEN FLOORS IN ALL.

e-work. The centre of each screen is filled with plate of hammered copper, bearing the name of the firm's specialties. Everything about the building has a solidity which seems to say, "We and this is no less apparent in the interior. The artistic arrangement of the building is described in words. The premises, which are in the form of a half circle, but the form is counteracted by a screen of galleries, which divides it into two parts, the upper half of which is a general office, accommodating a half of the ladies. But there is little of a spider-legged desks and stools; indeed, for a set hour each morning, and the office would not impress the street for, is made of walnut-wood, with a relief carving in straw-plait style. of it is fitted into a book-case for bound medical, medical, and pharmaceutical literature. gallery is obtained with art shades of plush,

we first reach the half-moon gallery, which we find utilised as a room for lady-clerks, who read and write stenography and work type-writers with singular rapidity. The first floor is divided into three apartments, which are used by the principals and their amanuenses. The rooms are *en suite*: the first of them is fitted up as a library and writing-room, the furniture being in richly-carved English oak; the fireplace has an open hearth, and a very old-fashioned appearance is given to it by the "grate," consisting of an antique metal basket suspended from a crane. The overmantel is made of oak relieved with small mirror insertions on bevelled plate-glass. In this room is placed for the use of employés after business hours a magnificent grand pianoforte, and near by is an American organ. Mr. Sudlow, the general manager, is an accomplished musician, and under his guidance a good deal of excellent harmony is produced. The next room is used by Mr. Burroughs, and is triangular in shape. There is little pretension in the furnishing of this room; an ordinary writing-cabinet stands in one corner, and beside it a revolving book-stand containing the most modern medical and pharmaceutical text and reference books, such as Ringer's "Therapeutics," Lauder Brunton's "Materia Medica and Therapeutics," Kirke's "Physiology," Remington's "Phar-

macy," &c., the authors of which by their writings assist in the compilation of the attractive and instructive advertisements of the firm. The presence of a chemical test cabinet in this room shows that experimentation is a part of the work done in it. The third room of the suite is used by Mr. Wellcome, and is furnished as a library, although hunting trophies, works of art from countries visited by the occupant, a striking statuette of Henry Ward Beecher, and a varied selection of general literature, give it less the look of a commercial room and more the appearance of a bachelor's den. The decoration of this suite of rooms and their furnishings are of a highly artistic character, yet quiet in tone. The second floor is occupied as a stockroom, as is also the floor above it. All the stock is kept in enclosed cupboards, which occupy the whole of the floor space, narrow passages running between them. The stock, consisting as it does principally of tabloids, is not of a heavy character, and is replenished every day from the factory, where it is sent out ready packed in boxes for distribution. The work in the

social reforms. His extraordinary fluency of language, and the quaint and original forms which he clothes his thoughts and beliefs, make his speech and conversation peculiarly attractive. Mr. Wellcome's place in literature as well as in commercial life avoids mixing in politics, and, though progressive views of a Conservative tendency. He holds the Royal Humane Society, awarded to him years ago for the gallant rescue of a young lady from the locks of the Thames. In literary and artistic circles Mr. Wellcome is always popular. He is a member of the Club of New York, and is the author of the "Story of Melakahlia" and various papers. He has entertained Stanley and other distinguished citizens of both hemispheres. During the past few weeks he has been actively interested in the search respecting the disappearance and, as was believed, the murder of his friend, Mr. Archibald McNeill. Messrs. Burroughs, Wellcome & Co. and the staff work together on terms of cordial friendship, the latter sharing by



BURROUGHS, WELLCOME & CO.'S FACTORY AND LABORATORIES, OCCUPYING SIX BUILDINGS AND RIVER WHARF.

city premises consists chiefly of filling city and home orders, export orders being executed at the factory. The top floor is occupied by a staff of seven printers and compositors, who execute a large part of the printing work required by the firm, such as labels, handbills, &c.

Parallel with their business success, and not altogether unassociated with it, Messrs. Burroughs & Wellcome have won a social reputation of a notable character. In their Holborn Viaduct parlours, or at their private receptions, are to be met from time to time many of the distinguished Americans who visit this country. Outside his business Mr. Burroughs is an ardent supporter of the Anti-Poverty League founded by Mr. Henry George, and he is often to be found in unexpected quarters of London assisting in the promotion of

a system of bonuses in the prosperity of the country. According to their system a definite and uniform percentage of the profits is divided every year among all the employees in proportion to the salary of each. The partnership has travelled extensively, and between them have introduced their goods to pharmacists and doctors in almost parts of the civilised world. Their special representatives follow their tracks, and the manufactures and products of Messrs. Burroughs, Wellcome & Co. have become recognised in all the colonies and in most foreign countries. Their general manager, Mr. Sudlow, and Mr. Kirby, have occupied their present positions since the formation of the firm.—*Reprint from THE CHEMIST AND DRUGGIST*, Jan. 28, 1888.

SPECIAL TO MERCHANTS AND SHIPPERS.

BEING desirous of introducing our goods into foreign markets where they are not already well known, we beg to say that we shall be happy to correspond with Merchants and Shippers for the purpose of co-operating with them. We call special attention to our "New Physician's Prescription Book," which is most useful to Pharmacists. We will supply one gratis to customers who take an interest in our articles and purchase them in fair quantities.

Yours faithfully,

BURROUGHS, WELLCOME & CO.

HIGHEST AWARD AT AMERICAN EXHIBITION, LONDON.
SILVER MEDAL (1st Prize), NEWCASTLE EXHIBITION.
BESIDES MANY AWARDS AT PREVIOUS EXHIBITIONS.

ARTICLES WHICH PAY TO INTRODUCE

Because they are of the very best quality, and are put up most attractively, special samples and circulars being supplied for distribution.



The large demand in Great Britain for Colgate's Cashmere Bouquet Soap which has arisen in a very short time is the more remarkable because it has been created solely through the drug trade, without any newspaper advertisements.

The quality of the Soap, its handsome appearance and delightful perfume, make it sell on sight, while the distribution of the samples brings the customers promptly to the chemists who send them out.

See letter, "The Bright Side," in THE CHEMIST AND DRUGGIST, Nov. 5, 1887, p. 590; also Nov. 12, 1887, pp. 611 and 624.

Note opinion of THE CHEMIST AND DRUGGIST, Sept. 17, 1887.

A NEW SOAP.—The soap trade of chemists has greatly diminished, and has almost vanished so far as the lower qualities are concerned. The only chance for maintaining the returns from this department is to place novelties of high-class character before customers, and we should think that there will be considerable satisfaction in introducing the Cashmere bouquet soap made by Messrs. Colgate & Co., of New York. This is a cream-coloured soap in oval tablets; it is remarkably pure and high-scented, and is put up in neat half-dozen boxes, with several elegant and artistic cover-cards. The agents, Messrs. Burroughs, Wellcome & Co., inform us that a liberal supply of sample tablets (one-fourth of a regular size) are presented to the retailer, so that sales may be facilitated. It is the favourite soap in the "States."

THOUGH NOT A CHEAP SOAP,

quality considered, Colgate's Cashmere Bouquet Soap is the best value in the market. It is made from a special stock which is not employed by any other soap maker in the world.

SAMPLES—SPECIAL OFFER.

Until further notice, with each dozen of Colgate's Cashmere Bouquet Soap ordered of us, or through the wholesale houses, we will supply 1 doz. samples for free distribution if a request for same be made on order. The samples are one-fourth the size of the regular soap and are much appreciated by all who receive them. With large orders we will supply special circulars to accompany samples bearing chemist's name and address only. Colgate's Cashmere Bouquet Soap has the largest sale of any superfine toilet soap.

Price, retail, 1s. 3d.; per dozen, 10s.; per gross, 110s. nett.

ORDER AT ONCE.

IT WILL PAY YOU TO DO SO.

COLGATE'S CASHMERE BOUQUET PERFUME

This exquisite odour, like that of the soap, is as distinctive as it is delicate and lasting. It is exceeding popular with the *élite* of society wherever it becomes known.

Prices: 1 oz., 2s. 6d. retail; 22s. doz.; 21s. 3d. in gross lots.

2 oz., 4s. retail; 30s. 9d. doz.; 29s. 7d. „ „

Also supplied in bond at special rates.



COLGATE & CO., 67 HOLBORN VIADUCT, LONDON, E.C.

Send, on receipt of business card, or when ordering any of our goods, a handsome Transparent Show Card for display.

ANTIPIRYRIN CRYSTAL & TABLOIDS.

AT REDUCED PRICES. SOLD BY ALL WHOLESALE DRUGGISTS.

3/5 per oz., Crystals; Tabloids, 5/10 per 100; Bottles of 25, 20/- per doz.

The New Analgesic, Febrifuge, and Hæmostatic.

Antipyrin appears to be in a measure a substitute for morphine, such as has not been heretofore available. It has been given with marked success in some most painful affections, and without disagreeable after-effects. One of the most troublesome of complaints is dysmenorrhœa, yet in this affection it has been given with perfect satisfaction. Even in biliary and renal colic it has stopped the pain, as it has also in neuralgia and angina pectoris.

Antipyrin is so well known as an efficient and reliable febrifuge—though not antiperiodic—that there are now very few modern physicians who do not use it more or less extensively.

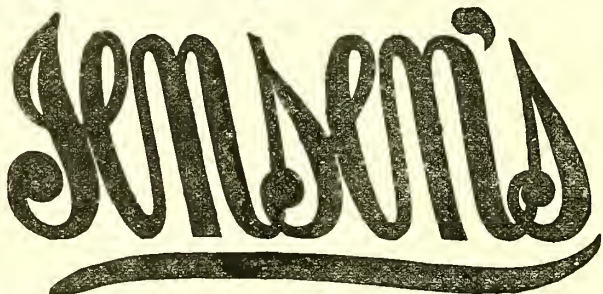
Antipyrin seems to have some just claim to be considered as a hæmostatic, as it has controlled some very obstinate cases of hæmorrhage, such as menorrhagia, hæmoptysis, epistaxis, etc.

As an anti rheumatic, Antipyrin has in some cases far surpassed the salicylates in the benefits it conferred.

In asthma, dyspnoea, and sea-sickness it has been found beneficial.

The Tabloids are a beautiful preparation, answering every purpose desired. Antipyrin Crystals, 3/5 per oz.; Tabloids, in bottles of 25 and 100 20/- and 70/- per doz., subject to usual discount. Retail prices, 2/6 and 7/6.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.



COD LIVER OIL.

The only Oil in the World guaranteed as made solely from perfectly fresh Livers, and therefore sweet and pleasant to taste and smell. Guaranteed non-congealable, and not liable to repeat.

ICEBERG BRAND

In bottles only, to retail at 1s., 2s., 3s. 6d. & 6s. 6d.

Norwegian Oil in bulk, supplied in Original Barrels or in Winchester, at prices according to quality and quantity, to retail under Chemist's own name.

HERTZ & COLLINGWOOD, 101 Leadenhall Street, London.

JOHN EVANS, 49 Dawson Street, Dublin.

A. S. LASCELLES & CO., 108 Broad Street, New York.



SWIFT'S SPECIFIC

Is Nature's own remedy, made from roots gathered from the forests of Georgia. The method by which it is made was obtained by a half-breed from the Creek Indians who inhabited a certain portion of Georgia, which was communicated to one of the early settlers, and this formula has been handed down to the present day. The cut represents the medicine of 20 years ago, by Mr. C. T. Swift, one of the present proprietors. The demand has been gradually increasing until an extensive laboratory is now necessary to supply the trade.

THIS GREAT

VEGETABLE BLOOD PURIFIER

Cures Cancer, Catarrh, Scrofula, Eczema, Ulcers, Rheumatism, Blood Taint, Hereditary or otherwise, without the use of Mercury or Potash.

Books on "Contagious Blood Poison" and on "Blood and Skin Diseases" mailed free.

THE SWIFT SPECIFIC COMPANY,
35 SNOW HILL, LONDON, E.C.; and ATLANTA, GEORGIA, U.S.A.

THE FINEST TABLE WATER IN THE WORLD

NATURAL

WATER.

"Johannis"

NATURAL

GAS.

THE NEW, GERMAN, SPARKLING, NATURAL, MINERAL TABLE WATER.
An enemy to Gout and Rheumatism. A friend to Digestion and Circulation.

DELICIOUS PLAIN OR WITH WINES AND SPIRITS. IN BOTTLES WITH SCREW CAPSULES
FOREIGN AND COLONIAL AGENTS WANTED.

JOHANNIS NATURAL MINERAL WATER COMPANY, LD., 5 Great Winchester St., LONDON, E.C.



ESTABLISHED 1858.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE:

NORMANBY CHAMBERS, MELBOURNE.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

It is sent free to every country in the world. Single copies, 4d. each.

Supplied only to persons connected with the Trade.

For Australasian subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

Literary Contents.

	PAGE		PAGE
Bankruptcy Reports	341	Gazette	341
Chemist at Work: William	342	Leaderettes	362
Circles, F.R.S.	346	Legal Reports	340
Correspondence:—		Literary Notes	372
The Pharmaceutical Society;		Metropolitan Reports	336
The Medicine Stamp Act;		Mr. Blank's Advertisements ..	368
The Pharmacy Bill;		Notes on Novelties	357
Heteropaths and the Minor ..	378	Obituary	345
Incorporated Society; Home- ..		Parliamentary Report.—The ..	
ma Telephone; Keeping ..		Pharmacy Acts Amend- ..	
a Cn-book	379	ment Bill	338
Dispensing Notes	379	Patents	344
Legal Notices	380	Personalities	357
Miscellaneous Inquiries	380	Pharmaceutical Society of ..	
Dental Notes	367	Great Britain:—	
Dr. Meggot Tidy on Poisons..	339	Evening Meeting	363
Edinburgh Chemists' Assist- ..		Pharmaceutical Society of Ire- ..	
ants Association	365	land	342
Editorial Notes:—		Provincial Reports	336
The Pharmacy Acts Amend- ..		Some Druggists' Specialities ..	346
ment Bill	358	Some Medicated Wines. By T. ..	
The Curriculum and the ..		Maben	371
School	359	The Flower Industry of Grasse ..	351
Isinglass and Gelatine; Pat- ..		The Indian Opium Trade	366
ent	360	Trade Marks Applied for	345
Free Trade with Siberia	361	Trade Notes	356
French Pharmaceutical News..	338	Trade Report	373
		Veterinary Treatment	370

Copies of this paper are sent to persons and firms in the United Kingdom who last year appear from official returns to have exported any chemicals or druggists' goods of any kind. Those among such firms who frequently receive inquiries for such goods will find this journal essential to their business. All are requested to file this issue for occasional reference.

POST-CARD COMPETITIONS, 1888.

No. 3.

MEMBERS OF THE PHARMACEUTICAL SOCIETY who it is desired shall serve on the Council of that body in the ensuing year must be nominated on or before March 24, and those nominees willing to offer themselves for election must signify their intention before March 31. We desire, in the first April issue of THE CHEMIST AND DRUGGIST, to furnish these gentlemen with some concise models for their election address, and we therefore offer the usual Prize of One Guinea for whoso shall seem to us to be the most effective address to the Editor issued by our friend, "Mr. Blank, pharmaceutical chemist whom we now assume to be a candidate. Our competitors will be able by this means to show what they think needs doing in the pharmaceutical world, and the limits of the post-card, which we insist upon, will compel all to express their ideas concisely. Post-cards in this competition will be received up to March 31 inclusive, and any reaching us after that date will be inadmissible. Subscribers, their employes and families, are qualified to compete.

POISONING CASES. — At Dublin on March 9, Evelyn Kearney, wife of a rat-poison manufacturer, residing at 3 Buckingham Street, swallowed a considerable amount of arsenic, which her husband keeps in stock for business purposes, and died after being removed to the Jervis Street Hospital.—Mary Ann Scrofton, a fortune-teller, and Elizabeth Foxall, a young married woman, were brought up for sentence at the Durham assizes, having several months ago been found guilty of attempted poisoning of Foxall's husband by the administration of "love-powder." Scrofton was now sentenced to seven years' and Foxall to five years' penal servitude.—An inquest was held at Little Coggeshall on the body of Mr. Richard Bird Holmes (64). From the evidence it appears that deceased suffered from chronic bronchitis, for which he had consulted London physicians. The evidence of Mr. John B. Frith, chemist, Coggeshall, who had been in the habit of dispensing the prescriptions of deceased, showed that the mixtures which he got contained solution of acetate of morphine, but not much of it. Mr. Thomas Simpson, surgeon, deposed that when he was called to deceased he found him in a stupor, and breathing heavily, the symptoms being such as would be produced by an excessive dose of a preparation of opium. It was possible that he had taken an overdose of a mixture. Verdict accordingly.—At Whiston on Tuesday afternoon William Lambert (58), a gardener, died from the effects of a two-tablespoonful dose of carbolic acid, taken in mistake for medicine, a bottle of which stood near the carbolic acid bottle.—On Friday, March 9, a boy named John Donnan (6), residing in Hallside village, Cambuslang, who was confined to bed with typhoid fever, while his mother was temporarily out of the room got up and drank a portion of the contents of a bottle of carbolic acid which had been used for disinfecting. He died in four hours.—Salt of sorrel was used with suicidal intent by a woman of 54 in Ayr last Saturday. The results were fatal.

DIARY FOR NEXT WEEK.

Secretaries of societies are requested to send early information of approaching meetings.

Monday, March 19.

Society of Arts, John Street, Adelphi, W.C., at 8 P.M.
Professor W. Chandler Roberts-Austen, on "Alloys."
Chemical Society, Burlington House, W., at 8 P.M. Mr. John Heron, on "The Polariscope and its application to Brewing."

Tuesday, March 20.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Mr. William Simpson, on "What Style of Architecture should we follow?"
Royal Institution, at 3 P.M. Professor G. J. Romanes, on "Before and After Darwin."

Wednesday, March 21.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Ordinary meeting. Mr. T. H. Thornton, on "The Evils of Canal Irrigation in India, and their Prevention."
Pharmaceutical Society, North British Branch, Edinburgh. Evening meeting, at 8.30 P.M., Mr. John Nesbit in the chair. Note on "Deposit in Decoction of Broom," by Mr. J. Hutchison Fisher; notes on "Ipecacuanha Wine," by Mr. C. A. Macpherson; report on "Acetic Extract of Ipecacuanha," by Messrs. J. W. Thomson and W. Duncan.

Thursday, March 22.

Royal Institution, at 3 P.M. The Rev. W. H. Dallinger on "Microscopical Work with recent Lenses on the least and simplest Forms of Life."
Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 9 P.M. Mr. A. P. Luff, on "Ptomaines."

Friday, March 23.

Royal Institution, at 9 P.M. Sir Frederick Bramwell, on "A Lecture with—and without—point."

Saturday, March 24.

Royal Institution, at 3 P.M. William Archer, on "The Modern Drama: English."

Metropolitan Reports.

THE GALEN CLUB is the name of a new West-end club for medical men and senior students. Should chemists wish to follow the example of the medicos they will please take note that the name "Laboratory Club" has been appropriated by a club consisting of practical brewers.

THE LIBERTY CLUB.—On Wednesday night, March 14, the last of the series of smoking concerts of the "Liberty" (Burroughs, Wellcome & Co.) Cricket Club was held at the Anchor Restaurant, Cheapside. A very pleasant and convivial evening was spent. Sir John Bennett was among the visitors present. Mr. Burroughs presided, and a special vote of thanks was passed to him and to Mr. Wellcome for the hearty support they have given to the concerts during the season.

AN INTERESTING MOVEMENT.—The employés of Messrs. Evans, Lescher & Webb assembled in goodly numbers at the school-rooms, 181 Aldersgate Street, E.C., on Monday evening, to hear a lecture by Mr. E. A. Webb, F.L.S., a member of the firm, on "A Plant's Life History." The meeting was one of a series of winter evening meetings for the social enjoyment and mental improvement of the employés, and it has occurred to those who have directed them that a little popular science more or less related to the business would greatly enhance the value of the gatherings. A commencement was therefore made with Mr. Webb's lecture, which was of a most interesting character and was greatly enjoyed by the audience. Beginning with the plant in its embryonic state, Mr. Webb showed and explained the various parts of the plant which are designed for its nutrition, preservation, and the perpetuation of the species. While speaking of the leaf, interesting facts were brought before the audience in reference to phyllotaxis, and it was shown that nature, in arranging the leaves in certain cases in a special manner, was providing against the attack of the flowers by insects. The flower was then taken up, and its structure and uses having been explained, the lecturer gave an interesting account of the means which are provided for the fertilisation of the stigma. The structure of various flowers, including the catkin, the flowers of grasses, white nettle, wood sage, primrose, arum lily, Nottingham catchfly, honeysuckle, and campanula was explained, and the provisions in the examples named for the attraction of certain insects and the repulsion of others were graphically described. This gave the lecturer an opportunity for some remarks regarding the friends and foes of insects. The concluding part of the lecture was devoted to a description of the means for the dispersion of the seed, and a few well-chosen remarks on the pleasures which are afforded by the study of nature, especially in the rearing of plants. The lecture was illustrated by a large number of excellent diagrams and dried specimens, as well as living plants. On the motion of Mr. Lescher, a cordial vote of thanks was accorded to Mr. Webb.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BELFAST.

OPPOSITION TO THE PHARMACY BILL.—A spirited circular written by a member of the North of Ireland Chemists' and Druggists' Association, has been put in circulation, indicating the grounds on which the chemists and druggists of Ireland are dissatisfied with the proposals of the Pharmaceutical Council in their Bill. The writer states that at the present moment there are in Ireland, meeting the wants of the public, ten times more chemists and druggists than pharmaceutical chemists, and that if the chemists and druggists were not in existence, the wants of the 2,000 post-towns of Ireland would have to be supplied by less than 300 pharmaceutical chemists, of whom a third are to be found in Dublin, Belfast, and Cork.

After alluding to the abortive attempts to prosecute some chemists and druggists of Belfast last year, the writer concludes thus:—"Now the Council are about to introduce an Irish Pharmacy Amendment Act, to legalise all who have gone into business as chemists and druggists up to the year 1887, to be called registered druggists; yet they do not only desire to take away from us the title chemist, but they will only give us a life interest in our business, and make no provision whatever for the thousands of young men already at our business, and, as already stated, whose existence alone proves them to be a public necessity. They also wish us to pay them an annual fee for the title registered druggist."

"On these grounds, we intend opposing said Bill and look for justice from the Imperial Parliament, on behalf of the chemists and druggists of Ireland, whose long existence and present status prove them a public necessity to our country."

FALSE PRETENCES.—At the Police Court, 1 week, Samuel Frene was charged with having obtained goods to the value of 3*l.* 15*s.* by means of false pretences, from Messrs. Fry & Company, Sevenoaks, Kent. Mr. Edmund Atter, ink manufacturer and chemist and druggist, Sevenoaks, Kent, deposed that goods to the value of 3*l.* 15*s.* were sent to the prisoner as samples, but he had not received money for them, and it was not intended that customers should be charged for them. Other evidence showed, however, that the prisoner had sold some of the ink and had taken payment for it.

There was a second charge against the prisoner having obtained goods to the value of 4*l.* 8*s.* 8*d.* from a Berkshire firm, and he was accordingly remanded, bail to the amount of 200*l.* being accepted.

BIRMINGHAM.

AN ASTON CHEMIST AND HIS FATHER.—Robert B. Belcher, chemist, of Longacre, Nechells, was summoned at the Aston Police Court on Tuesday for doing will damage to a pane of glass at the residence of his father, 1, 1/2 Lane, Erdington, on March 7. A family quarrel was mentioned as the source of the trouble. The case was withdrawn on the payment of costs and damages.

A DISPENSARY DOCTOR CENSURED.—At an meeting on the body of William Turner (63), gardener, of Edwy Road, which was held on Tuesday, Dr. Kirby, a doctor of the Birmingham General Dispensary, was censured. The deceased was a patient of the dispensary, and the doctor failed to attend the case properly. The verdict was to the effect that death had resulted from bronchitis and was accelerated more or less by the neglect of the doctor and want of food.

DEVONPORT.

BRANCH SHOPS.—In connection with the clause which has been introduced into the Bill before Parliament, it has been stated that in the "Towns" (Plymouth, Devonport, and Stonehouse) there are eight branch-shops, not one of which is managed by a qualified assistant, and two are managed by apprentices under twenty years of age.

EASTBOURNE.

HOMOEOPATHIC CONVALESCENT HOME.—The convalescent home in connection with the London Homoeopathic Hospital, has been successfully established in this health-giving locality. The donations and subscriptions amount, we understand, to nearly 2,000*l.*, and the authorities have purchased a suitable villa in close proximity to the Princess Alice Hospital at Upperton, Eastbourne. The Home will be opened in May.

LIVERPOOL.

AN EXTRAORDINARY SCENE was witnessed here on Friday of last week. A number of barrels containing a large quantity of spirits were washed ashore at the south end, and a number of men broached some of the barrels and drank the spirits freely. As might be expected, the result was that many of the drinkers were soon in a highly intoxicated condition, in some cases toxic symptoms supervened.

had to be adopted to rid the men of the "perilous stuff." Some of them have been dangerously ill, nevertheless, and a rumour was current that several children had died.

LIVERPOOL CHEMISTS' ASSOCIATION.—The annual dinner of the members of this Association was held at the Stork Hotel on Thursday evening. The President, Mr. A. H. Samuel, was in the chair, and there was a large attendance. There was an excellent menu, and the programme of toasts, songs, and musical pieces was a most enjoyable one. After the usual saluatory toasts the chairman, in proposing the Liverpool Chemists' Association, said it was the oldest of its kind in the United Kingdom. It was to the late Jacob Bell, a name highly esteemed amongst all pharmacists, that it owed its inception. The study of pharmacy in the early days of the Society was comparatively in its infancy. No legal qualification was required to practise as chemist and druggist, and what knowledge their chemists had acquired was of a very limited character. The future of their Association, however, had been in very able hands, and by the indomitable perseverance of such men as Baker Edwards Nathan Mercer, Edw. Evans, Hy. Evans, John Abraham, Robt. Clay, Prof. T. C. Archer, Dr. Nevins, and others, it could not but continue to prosper. Nearly all these gentlemen had passed away from their midst, but it was highly satisfactory to see around the table some of their sons, showing that they had the spirit of their fathers in the furtherance of the good work. He ventured to say that no other institution of its kind out of London stood so well as theirs. They had a valuable reference library, which could not but be of great advantage to the students of the city. They looked forward to greater success in the future. Amongst other toasts which followed were "The Pharmaceutical Society of Great Britain," "The Medical Profession," and "The Wholesale Trade."

MANCHESTER.

SUDDEN DEATH IN A CHEMIST'S SHOP.—About eleven o'clock on Monday morning, a greengrocer named Samuel Lane, of Dunston, entered the shop of Messrs. Jewsbury & Brown, pharmaceutical chemists, 113 Market Street, Manchester, in order to make some purchases. As soon as he entered the shop, however, he began to bleed at the mouth. He was promptly conveyed to the infirmary, but expired on the way. A medical examination was made, and it was found that a blood-vessel had been ruptured.

NOTTINGHAM.

NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.—An evening meeting of the associates of the society was held on March 3. Mr. W. H. Parker (Hon. Treasurer) occupied the chair. Mr. Priestley read a paper on "Tobacco," chemically, physiologically, and morally considered. The author condemned the use of the weed, and a very animated discussion ensued, which was taken part in by Messrs. Gill, Allen, and Williamson on behalf of the essayist, and combated by the chairman and Messrs. Turner, Eberlin, Boor, Ayres, and all.

SHEFFIELD.

THE ASSAULT ON MR. A. R. FOX has turned out to be more serious than was expected. It has been found that the blow from the jaw which knocked out four of his teeth also smashed the jaw-bone. Mr. Fox is suffering severely from this injury.

LEAD-POISONING is still prevalent. Mr. A. H. Allen states at cases are daily coming to his knowledge of poisoning with Sheffield water, and has in his private capacity instituted inquiry, which is calculated to elucidate all the facts, so far as cause and cure is concerned, in those cases which have occurred.

THE TREATMENT OF SHEFFIELD WATER with limestone has had effect, less being present to quite as great an extent as before. A very lively discussion on the subject took place at a "Lit. and Phil." on the occasion of Mr. Allen reading a paper "On the Cause and Probable Cure of the Action of Sheffield Water on Lead." Mr. Allen attributed the action of the arcaol filter in removing lead to the calcium phosphate they contain.

SMALLPOX is abating, and the demand for lymph has fallen off as suddenly as it sprang up.

PHARMACEUTICAL AND CHEMICAL SOCIETY.—Wednesday's meeting was a "students' night," the business being an essay on "Homœopathy and its Lessons," by H. Cole; "A Note on the Flower-buds and Fruits of Eucalyptus," by G. A. Grierson; magic-lantern entertainment, by A. S. Smith and C. D. Moffatt, and an exhibition of new and rare drugs from the Museum of the Pharmaceutical Society of Great Britain.

WOLVERHAMPTON.

A BRUTAL ASSAULT.—At the Wolverhampton Police Court, recently, Harry Lee, described as a pharmaceutical chemist, of Dunstall Road, Wolverhampton, was charged with assaulting his wife, Martha Mary Lee. Mrs. Lee stated in evidence that she was married ten years ago, and that she had two children. On February 27 she called her husband out of a public-house in Stafford Road, and told him that if he could find money for drink he could find money for the support of his children, who were starving. On his returning home she again reproached him, and he replied by striking her. He then pulled her to the floor by the hair of her head, but he was prevented from committing further violence by the interference of a man named Day. The defendant had systematically thrashed her for the past two years. In reply to the magistrate she said that her husband had come into a valuable business belonging to his father; but he had lost it, and mortgaged the property. He was a thorough master of his profession. [Mrs. Lee's solicitor stated that Lee had gone through 8,000*l.* in six years.] Latterly she and her family had been supported by friends. Prisoner was found guilty, and was sentenced to two months' hard labour. A judicial separation was also granted, Mrs. Lee to have the custody of the children, and the defendant to contribute 1*l.* per week towards their support.

SCOTLAND.

DUNDEE.

AN ABSCONDING BANKRUPT CAUGHT.—Dr. Patrick Letters, who, as reported in this journal of December 10 failed to attend the Edinburgh Bankruptcy Court on December 2 in regard to his affairs, was arrested in Cork on Thursday of last week on a warrant from the Edinburgh Court. Dr. Letters was formerly in practice in this town, having three open drug shops. He had made no statement of his affairs, and, in consequence of this and his non-appearance at the Court when called upon, the police have been in search of him since December. When accosted by Sergeant Rowe, who said he had a warrant for his arrest, Dr. Letters gave his name as Riordan, and stated that he was the individual mentioned in the warrant. When asked for his address, he said he had no fixed place of abode. He had been residing in Cork, his wife and family staying in Macroom, a town about twenty miles from the city. Dr. Letters was charged at the Police Court next day, and was remanded pending communication with the authorities in Edinburgh.

EDINBURGH.

MR. NICOL CRAIG, at present with Messrs. Duncan, Flockhart & Co., North Bridge, has purchased the business in Earlston which Mr. Hogg is leaving to take up Mr. Gibson's business in Leven. Mr. Craig assumes possession on April 1.

A PARTNERSHIP QUESTION.—At the Court of Session on Saturday Lord Trayner heard evidence in the action brought by Mr. Alexander Gibb Bruce, chemist and druggist, 6 Melville Terrace, Edinburgh, against Dr. Robert S. Forrest, Auchterarder, to have it declared that pursuer was partner with defender in a drug business at Auchterarder, which they acquired from Mr. Robert Cairnie in June last, and carried on under the name of the Auchterarder Medical Hall. Count and reckoning was also asked, or payment of 100*l.* According to pursuer, he and Dr. Forrest were to contribute equally to the capital of the business, and to share equally in the profits. Defender took a lease of the premises in his own name at Martinmas, and alleged that Mr. Bruce retired from the partnership on October 31 last. After evidence had been partly heard, a settlement was effected, in terms of which defender agreed to pay 34*l.* to pursuer, and each party is to pay his own expenses.

PARLIAMENTARY REPORT.

THE PHARMACY ACTS AMENDMENT BILL.

IN the House of Lords, on Monday, the report upon the amendments to the Pharmacy Acts Amendment Bill was brought up for consideration.

When the Bill was in committee a new clause was inserted which ran thus:—"It shall be unlawful for a duly-qualified keeper of an open shop for retailing, dispensing, or compounding poisons, to keep open shop in more places than one, unless he shall engage or employ at each branch shop a person who would himself be a duly-qualified keeper of an open shop for retailing, dispensing, or compounding poisons, and such person is *bonâ fide* occupied in such branch shop; provided always that each partner in a duly-qualified partnership may keep a separate open shop for retailing, dispensing, or compounding poisons. Every keeper of an open shop for retailing, dispensing, or compounding poisons acting in contravention of the preceding section shall, for every such contravention, be liable to pay a penalty of 5*l.*, and the said penalty may be sued for and recovered in the manner provided for by the Pharmacy Act, 1852, for the recovery of penalties under that Act."

Upon the report being brought up, Lord Milltown moved the omission of the words "unless he shall engage or employ at each branch shop a person who would himself be a duly-qualified keeper of an open shop for retailing, dispensing, or compounding poisons, and such person is *bonâ fide* occupied in such branch shop; provided always that each partner in a duly-qualified partnership may keep a separate open shop for retailing, dispensing, or compounding poisons," and to insert the words "Each branch shop shall be *bonâ fide* conducted by a duly-qualified assistant, and a duly-qualified assistant within the meaning of this clause shall be a pharmaceutical chemist, or a chemist and druggist registered by the registrar under the Pharmacy Acts of 1852 and 1868," in their place. With regard to clause 5 of the Bill, which stood thus:—"This Act shall, for the purposes of passing by-laws come into operation on the first day of January, one thousand eight hundred and eighty-nine, and may be cited for all purposes as the Pharmacy Act, 1888, and shall be construed as one with the Pharmacy Act, 1852, the Pharmacy Act, 1868, and the Pharmacy Act (1868) Amendment Act, 1869," his lordship moved to leave out the words "for the purposes of passing by-laws."

The amendments were agreed to, and the Bill passed through the report stage without discussion.

The following is the text of the Bill as it now stands:—

A BILL

[AS AMENDED ON REPORT]

Intituled an Act to amend the Pharmacy Act, 1852, the Pharmacy Act, 1868, and the Pharmacy Act (1868) Amendment Act, 1869.

BE it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. The powers of the Pharmacy Act, 1852, of the Pharmacy Act, 1868, and of the Pharmacy (1868) Amendment Act, 1869, with respect to examinations required for obtaining certificates of qualification under the said Acts, or either of them, shall be extended so as to allow of the division of the said examinations into preliminary and other parts of the same; also to allow of or require periods of time and courses of instruction between any of the said parts; and to require that persons presenting themselves for the final part of an examination shall have deposited with the registrar under the said Acts certificates of their having duly attended courses of instruction in chemistry, botany, and materia medica, and having for not less than three years in the whole served in the open shops of chemists and druggists, or in public hospitals or dispensaries as apprentices or pupils of chemists and druggists qualified in accordance with the law of the country in which they are carrying on business to dispense the prescriptions of persons legally qualified to practise medicine in that country.

2. It shall be lawful for the Pharmaceutical Society of Great Britain from time to time, by by-laws duly confirmed by the Privy Council, to regulate the said division of examinations and also the said periods of time and study between any of the said parts, also to allow and provide for to regulate the reception of certificates issued by other examining bodies in lieu of or so as to satisfy the examiners in lieu of the preliminary part of any examination, also to regulate the courses of instruction in chemistry, botany, and materia medica to be duly attended as aforesaid, also the forms of certificates to be for any purpose of this Act deposited with the said registrar, and also the notices to be given and fees to be paid by persons intending to present themselves for examination in any part of an examination or desiring any registration under the said Acts or either of them. Provided always that no by-law for the purposes authorised by this Act shall come into operation prior to the first day of January, one thousand eight hundred and ninety-three.

3. It shall be unlawful for a duly qualified keeper of an open shop for retailing, dispensing, or compounding poisons to keep open shop in more places than one unless each branch shop shall be *bonâ fide* conducted by a duly qualified assistant, and a duly qualified assistant within the meaning of this clause shall be a pharmaceutical chemist or a chemist and druggist registered by the registrar under the Pharmacy Acts of 1852 and 1868. Every keeper of an open shop for retailing, dispensing, or compounding poisons acting in contravention of the preceding section, shall for every such contravention be liable to pay a penalty of five pounds, and the said penalty may be sued for and recovered in the manner provided by the Pharmacy Act, 1852, for the recovery of penalties under that Act.

4. This Act shall not extend to Ireland.

5. This Act shall come into operation on the first day of January, one thousand eight hundred and eighty-nine, and may be cited for all purposes as the Pharmacy Acts Amendment Act, 1888, and shall be construed as one with the Pharmacy Act, 1852, the Pharmacy Act, 1868, and the Pharmacy Act (1868) Amendment Act, 1869.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

M. FILLON, a pharmacist of the first-class, is been appointed, for a term of nine years, assistant professor of pharmacy and materia medica at the Besançon School of Medicine and Pharmacy.

SACCHARIN CHARTREUSE FOR DIABETICS.—At a meeting of the Society of Practical Medicine, M. A. Pelletier recommended the following formula for diabetic patients who cannot do without their drop of chartreuse after meals:—

Chartreuse elixir (unsweetened) ..	100 gramm
Alcohol of 50 degrees	900 "
Saccharin	3 "
Bicarbonate of soda	1.50 "

The object of the bicarbonate is to increase the solubility of saccharin, naturally an acid compound, and in order to give it a pleasant flavour.

LEAD-POISONING.—A new way of getting poisoned with lead was mentioned by Dr. Duguet at a recent meeting of the Laryngological Society. A patient under his care at the Lariboisière Hospital, suffering from lead colic, was found to have contracted the disease through the handling of paper coloured with red plumbic oxide. The material was cut into strips, and gummed on one side, and all the while a woman—had to do was to catch the strips by one end with her wet finger, and to apply them to the box-lids. The contact was short enough; but as it had to be repeated four or five thousand times a day, and her finger had to be again and again on her tongue, she was taken with an attack of saturnism. Under treatment she recovered and found other work; but other women are now engaged in her place, and getting slowly, but surely, poisoned by finishing the same boxes. To give every one his share of the added danger the boxes in question are used for spool cotton called the "Coton à la Ménagère."

THE ANTIPIRYNE LAWSUIT.—M. A. Petit, the pharmacist of the Rue Favart, is now at law with the Parisian Aniline Company (Compagnie parisienne des couleurs d'aniline), represented by M. Knorr, the issue of the contest being to obtain a decision on the validity of the antipyrine patent and trade-mark. From the beginning the feeling of French pharmacists has been, as may be expected, strongly in favour of the stand taken by M. Petit, the defendant in the action now pending. But something more tangible than good wishes and empty "resolutions" is necessary to help in the fight against a powerful corporation. At their last sitting the board of the Seine Pharmacists' Provident Society (Société de prévoyance des pharmaciens de la Seine) decided to afford to M. Petit, and to any other member of the society who may be similarly prosecuted, its moral support, and, if necessary, pecuniary aid. The contest is getting interesting.

SOCIÉTÉ DES AMIS DES SCIENCES.—Under this unpretentious title a benevolent society, founded in 1857 by the chemist Thénard, is doing much good, and has acquired considerable development. Its object is to lend a helping hand to such scientists, or their families, as may be in need of assistance. The funds at the disposal of the society are chiefly derived from the yearly contribution (10*fr.*) of its 2,400 members, but it has other sources of income, as will be seen hereafter. On Saturday, March 5, the annual meeting was held at the grand amphitheatre of the Sorbonne, and from the report of Secretary A. Riche, a professor at the College of Pharmacy, some interesting facts taken at random may be quoted. It seems not long since the society was straitened for funds—that is, it had not as much money as it wished to distribute in charities—when some one suggested the idea of a ball. The greybeards were horrified, but the ladies, who always have the last word, favoured it, and made the festive such a success that a ball every two years is now an accepted feature of the society's proceedings. And indeed dancing for charity's sake must be a profitable pastime, since the average returns have been 50,000*fr.*, for each ball. The total income for the past year was 128,000*fr.*, but out of this the sum of 22,000*fr.* should be deducted, as it was bequeathed by M. Arby for a special purpose, namely, the education of some scientist's son. The Galignani brothers also conferred a benefit on the society. In the house of retreat founded by them 50 berths will be gratuitous; and the society will have the selection of 20 of the beneficiaries, who are to be old scientists or their widows. Bequests were also acknowledged of 3,000*fr.* from the Bousingault family and 20,000*fr.* from M. Thomassin. The funds on hand aggregated on January 1 about 6,000*fr.*, and it is hoped to soon complete the round million. From a glance at the list of the officers and members it is easy to see that chemists and pharmacists are well represented in the society. For instance, we notice Pasteur as president; Becquerel, one of the vice-presidents; Professor A. Riche, of the College of Pharmacy, and Baron Thénard as secretaries; also Professor Berthelot; M. Chatin, late director of the College; M. Poirrier, the manufacturing chemist; Professor Marty, of the Val-de-Grâce; Senator Scheurer-Kestner, the chemist; and many others. Besides, two of the regular rushers of the College of Pharmacy assisting in the giving of the audience lent a familiar and decidedly pharmaceutical look to the proceedings. A short lecture on Lavoisier by Professor Grimaux, proved an interesting feature of the evening. The object of the speaker was to show the private life of the man so well known as a public and scientific character, and this he was enabled to do by the kindness of Lavoisier's family, represented by his grand-nephew, J. de Chazelles, who occupied a seat on the platform on the occasion. From unpublished letters and documents it appeared that Lavoisier when twenty-eight years of age married a girl butly past fourteen, who with womanly devotion did her utmost to lighten and help her husband's labours, learning drawing and foreign languages, and acting as his secretary. During Benjamin Franklin's sojourn in France she painted his portrait, which is still in the possession of the family. In 1797, when Arthur Young visited Lavoisier, she prepared for him a regular English breakfast with tea and coffee, things almost unknown in France at the time. Lavoisier had also frequent relations with Banks, Tennant, and other scientists, and far from being jealous of contemporary chemists, his correspondence shows him to have been a great admirer of

Priestley, whose opinions he quoted with deference, and of Black, whom he called the Nestor of chemistry. A man of wealth and influence, Lavoisier was ever interested in the welfare of the poor and weak, promoting every undertaking which could improve their condition. He died, as is well known, a victim to the political passions of the time, his only crime being that he had been a farmer, or collector, of taxes, a most unpopular employment at all periods. But a reparation is due to his memory. A project is now on foot to erect a statue to Lavoisier before 1894, the centenary of his death, in front of the Palais Mazarin, formerly the site of the College Mazarin, where he was educated, and now the seat of the Academy of Sciences, which owes so much to Lavoisier.

DR. MEYMOTT TIDY ON POISONS.

AT the Royal Institution on Friday evening, March 2, Dr. Tidy delighted a large audience for the space of an hour with a characteristically-delivered lecture on "Poisons." Going to the very root of his subject, he went back to the time of the ancient Greeks to show that the word toxicology was derived from the Greek word *toxon*, which signified not only a bow but the arrow which was shot from it. Later Dioscorides used a modification of the word to signify the poison which was smeared on the tips of the arrows. The history of poisons is one of the most interesting studies which anyone can take up. It may be said that it begins with the serpent which tempted Mother Eve, and whose venom was the poison which has since rankled in the soul of man. Snake poison was first used for tipping arrows; it was much later before vegetable poisons were introduced for this purpose. Some of these poisons are extremely powerful. "Here," said Dr. Tidy, "is one of them, 'Curarine,' which belonged to my accomplished predecessor, Dr. Pereira. It is believed to owe its action to strychnine. I don't know about that, but here is a bottle with enough aconitine in it to remove the whole scientific life in London—(laughter)—and here strychnine sufficient to remove 14,000 or 15,000 people. Mighty weapon!" Proceeding in this fashion in mock-heroic tone of voice, frowning on his specimens with nervous eagerness, Dr. Tidy went on to consider What is a Poison? Blood was long reputed to be a poison, but that idea is now exploded. It is not easy to define a poison. The law has not given a definition, and the popular one, that "a poison is a drug which kills rapidly when administered in small quantity," won't do. Showing bottles containing about an ounce of oxalic acid and the same of lead acetate, he asked could these be considered small quantities. His definition was that "a poison is any substance which, other than by the agency of heat or electricity, is capable of destroying life by chemical action or by its physiological effects upon the system." Anything mechanical capable of being swallowed—such as pins or Acts of Parliament—is not a poison; nor is anything which blocks out other substances essential to life. Nitrogen, for instance, is not a poison, although we cannot live in it, but carbonic acid gas is, because it has a specific toxic action, and the presence of any quantity of oxygen would not prevent this. The law has somewhat complicated the question What is a poison? by tacking on the word "deadly" to it, as in the indictment in Palmer's case, which was read. Now if a poison is a poison it is deadly, if it is not deadly it is not a poison.

Poisons may be considered to act in three ways. In the first of these, corrosive substances, such as sulphuric acid, acting upon the tissues, destroy them. Thus sulphuric acid acts by withdrawing water from the tissues, leaving them in a charred state, thus producing localised death, which becomes general. Specimens of human stomachs which had been so destroyed were exhibited, and attention was called to the peculiar effect of nitric acid, which leaves the stomach in the yellow condition which is characteristic of that acid. The second class of poisons may be exemplified in carbonic monoxide, which poisons by altering the chemical constitution of the blood so much that the physiological functions cannot be performed. At this part of the lecture, Dr. Tidy exhibited several interesting experiments, showing the absorption band of hæmaglobin in the blood spectrum, and the affinity of oxygen for hæmaglobin, whereby the latter acts as the oxygen-carrier for the whole system. The act of

life depends upon the integrity of the hæmaglobin. It happens that when carbon monoxide is breathed it combines with the hæmaglobin, and persistently refuses to part with it, so that it loses its property as a carrier of oxygen; hence carbon monoxide is a true poison. After showing how blood is detected when it exists as spots on clothing (simply by carefully washing with a weak solution of citric acid, and examining the solution with the spectroscope for the absorption band), Dr. Tidy proceeded to describe the third class of poisons, taking strychnine as his example. He showed by means of a lantern the colour reaction of the alkaloid, the oxidation being induced by connecting the poles of a battery with the solution of strychnine in sulphuric acid. As to the question, How does strychnine poison? he simply said, "I don't know; nobody knows." But it is a noteworthy fact that when a frog, poisoned with strychnine, is carefully watched, it is observed that the minute that the tetanic convulsion comes on is just the minute at which hæmaglobin disappears from the blood.

The remainder of the lecture was devoted to a description of the attempts which have been made to show that the poisonous properties of bodies bear some relation to natural laws, such as, in the case of the elements, the atomic weights and the periodic law, and in the case of compounds the constitution thereof. Ingenious as are many of the suggestions which have been made since the days of Blake in 1841 there are too many exceptions to the laws which have been formulated to allow them to be established. For instance, observations have led to the assertion that physiological action increases with atomic weight, but it happens that lithium (7) is more toxic than sodium (23) and potassium (39). Again, the allotropic form materially alters the physiological action of the elements. Thus ordinary phosphorus is highly poisonous, amorphous phosphorus is absolutely inert; oxygen is the staff of life, its allotropic form ozone is an active poison. Chemical constitution does, indeed, bear some relation to physiological action, as in the case of isomorphous salts, and Fraser and Crum-Brown have shown that by modifying chemical constitution physiological action is altered. Thus strychnine acts upon the spinal cord, producing tetanus, but introduce the methyl group into it and it is found that the compound produces paralysis. Curious to say other alkaloids also paralyse when the methyl group is introduced into them. But on the whole no *a priori* reasoning can tell us what the action of a thing may be. In conclusion, Dr. Tidy showed how the poisons of the toxicologist are the medicines of the physician, and upon this he based a defence of vivisection.

Legal Reports.

TRADE MARK CASE.

In the Chancery Division, before Mr. Justice Kay, on March 9, application was made on behalf of a firm carrying on business as the British Hygienic Company, to restrain a defendant named Schwenck, until the trial or further order, from infringing the plaintiffs' trade-mark and passing off his goods as the plaintiffs'. The plaintiffs claimed to be proprietors of an ointment, called "Almond Popoline," which they sold in penny boxes, bearing a registered label or trade-mark of the human foot, in combination with the words "Almond Popoline," and stating that the preparation "keeps the feet sweet and healthy." The defendant Schwenck had been employed by the plaintiffs as the commander of a brigade of boys in uniform, who hawked the plaintiffs' preparation about the streets of Canning Town, and the plaintiffs alleged that Schwenck and his co-defendant were selling an ointment in boxes bearing labels similar to theirs, with the exception that the defendants substituted the title "Almond Popiton."

Mr. Marten, Q.C., and Mr. Bousfield appeared for the plaintiffs; the defendant Schwenck appeared in person.

Mr. Justice Kay said he exceedingly regretted to see that the Court was constantly being asked to grant injunctions to restrain people from selling quack preparations. He was satisfied that this was usually done for the sake of advertisement. He felt bound to say that the plaintiffs in this case had established their right to an injunction; but lest they

should make use of the order to advertise their article he must do what he did on a former occasion in a similar case—namely, request that there should be added to the advertisement a caution from the Bench that no one should use this stuff except under medical advice.

THE MERCHANDISE MARKS ACT—GELATINE OR ISINGLASS?

At the Mansion House, on Tuesday, Mr. Latimer Pender Swinborne was summoned before the Lord Mayor for infringement of the provisions of the Merchandise Marks Act of 1887 by having applied to certain goods—namely, gelatine or other substance—a false trade description as the material of which such goods were composed, by which description the goods were falsely described, stated, or intended to be isinglass. There were three other summonses against Mr. Swinborne for selling the goods in question and applying to them a false trade description, whereby they were falsely described as being the subject of an existing patent or a patent isinglass, and also for selling the latter goods thus described. The defendant pleaded "Not guilty." Mr. Hey and Mr. Gray appeared for the complainants; Mr. Polan was counsel for the defence. Mr. Besley, in opening the case, said this was a proceeding instituted by Messrs. Grice & Co., isinglass merchants, of 4 Bishopsgate Avenue. On February 6 twelve packets of the goods in question were sold at the defendant's premises in St. Andrew's Hill, near Victoria Street, the label on the packets stating "by royal letters patent." Mr. Besley pointed out that no patent existed after the lapse of fourteen years, and as far as he was instructed the only patent which would warrant that statement was one granted provisionally in the year 1841 and completely registered in 1848. He (Mr. Besley) was not aware of any subsequent patent, but as far as the evidence was before him there had been no patent since that date. That patent had reference to the manufacture of gelatine, and isinglass was not mentioned in it, but only at isinglass cutter. The goods in question were described on the labels as "Swinborne's patent refined isinglass," and it was asserted on the part of the prosecution that this was a false description of the contents. It was alleged in the summonses that it was not isinglass, but gelatine, and that there was not a patent existing which would cover anything like the description. Isinglass was manufactured from the swimming-bladders of sturgeon and other fish. Upon an analysis of a packet of the goods in question a particle of isinglass was found, but it was gelatine. Isinglass was marked to a certain extent by non-solubility, and gelatine by solubility. Gelatine might be made from hides and dressed skins. Professor Atfield, F.R.S., professor of practical chemistry to the Pharmaceutical Society, deposed that he analysed one of the packets in question. In his opinion the substance was not isinglass, but ordinary soluble gelatine. Among other differences, the insolubility in warm water of isinglass as contrasted with the solubility of ordinary gelatine was considered by him to show that the material was ordinary soluble gelatine and not isinglass. The witness was cross-examined at considerable length by Mr. Polan as to the composition of isinglass and gelatine. The word "patent" indicated that it was not isinglass, isinglass being a natural substance. Isinglass was chemically one form of gelatine. Dr. Hake, professor of chemistry at Westminster Hospital, also gave evidence. It was stated that when the summonses were served upon the defendant he read them and said, "I was threshed out in 1851." Mr. Polan, at the conclusion of the evidence, submitted that no case had been made out by the prosecution. The Lord Mayor, interposing, said he did not think it would be necessary to hear the learned counsel. He did not consider that the prosecution had made out their case, nor did he think it one that came within the letter or spirit of the Act. The word "isinglass," by the evidence, was evidently a term which had been used as applied to gelatinous matters, and it was admitted by many authorities that isinglass was the purest form of gelatine. Professor Atfield, in his evidence, said that the word "patent" on a packet proved that it could not be isinglass, which is a natural substance, and, if so, they could no more have a patent in isinglass than they could have a patent in an apple. Mr. Besley said he should like to have the question of law reserved for the opinion of the High Court.

Poland said that ever since 1847 they had described this article this way. In 1851 the validity of the patent was called in question, and it was then described to be a most valuable patent. In 1853 Mr. Swinborne took proceedings against some other persons, and the Master of the Rolls then said that the plaintiff, Mr. Swinborne, was possessed of a patent for the manufacture of isinglass. They had always described it in this way. The Lord Mayor observed that they could not have a stronger proof that he was right than the fact that a judge had described it as isinglass. Therefore the term as a general term was perfectly correct. The summons were accordingly dismissed.

FILURES AND BANKRUPTCY REPORTS.

Re HIRY ACKERMAN, Wholesale Druggist, Chemist and Dentist.

At the Bristol County Court on Friday last the judge confirmed the composition which had been offered.

WILLIAM CLEMENT MILWARD, 21 St. Stephen's Square, Weboume Park, late "Derhaddon," Brixton Rise, Suron.

This debtor applied to Mr. Registrar Brougham to confirm a settlement of arrangement come to by the creditors at their first meeting. The statement of affairs shows liabilities 2,866*l.* (10*d.*), of which 2,745*l.* 19*s.* is expected to rank, and assets 4*l.* At the first meeting the creditors resolved to accept a scheme of arrangement providing for the payment of a surplus 300*l.* to pay the preferential costs, the balance to be divided *pro rata* among the creditors, family claims to the amount of 1,418*l.* 9*s.* 6*d.* being withdrawn. The Official Receiver reported that inasmuch as only 40*l.* assets had been disclosed by the debtor in his statement of affairs, and that the liabilities expected to rank for dividend would be considerably reduced by the withdrawal of the claims mentioned, the proposed scheme of arrangement was reasonable, and called to benefit the general body of creditors, inasmuch as it would upon withdrawal of those claims pay about 3*s.* 4*d.* in the 1*l.* The debtor, who states that he is a bachelor of medicine, and formerly practised in Manchester, came to London in June, 1885, and attributes his failure chiefly to this expenditure having exceeded his income, and to expenses in connection with his Brixton premises. The scheme is now opposed by creditors chiefly on the ground of unjustifiable extravagance in living. After hearing the arguments his Honour came to the conclusion that the offence of extravagant living had not been proved. As to the scheme, taking all things into consideration, he thought it was a beneficial one to the general body of creditors, and ordered it to be confirmed.

EDWARD RIPPON, 85 Upper Street, Islington, Chemist, &c.

In this case the receiving order was made on February 2. The debtor has already been adjudicated bankrupt, and an order has been made for the summary administration of the estate. The accounts filed show gross liabilities of 324*l.* 19*s.* 8*d.*, of which 270*l.* 15*s.* 8*d.* is expected to rank against assets of 91*l.* 1*s.* The Official Receiver reports:—"The debtor states that he began business in 18 with 800*l.* borrowed money, which he has since repaid out of the profits of the business. He attributes his insolvency to his expenses having latterly exceeded his profits owing to a falling off in his business during the past three years, from increase of competition and changes in the neighbourhood, and to depreciation in the value of his stock and effects as estimated for realisation. He has produced only a book showing his cash takings since 1878, and states that he has not kept any ledger or account of his disbursements."

ANTIPAIN is considered by Mr. N. E. Davies to be an invaluable remedy for migraine and headache. He gives it in 10-grain doses every two or three hours, until the pain is relieved, and then every six hours for a day or two after, thereby preventing all chance of a recurrence. Dr. G. C. Kingsbury gives similar testimony.

Gazette.

PARTNERSHIPS DISSOLVED.

BROWN & GRIFFITHS, Dudley, chemical manufacturers, makers of self-raising flour, spices, polishes, and other articles.

HARGREAVES BROTHERS & Co, Kingston-upon-Hull, blue and black lead manufacturers; as far as regards M. H. Hargreaves.

HARRISON, J. & B., Thornbury, near Bradford, veterinary surgeons.

MEDWIN, A. G., & HOOPER, H. J., Montpelier Row, Blackheath, dentists and dental surgeons.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

AVERY, ALFRED (trading as the Crayford Wine and Spirit Company, and Mineral Water Manufacturer), West Hill, Dartford, and Crayford, Kent.

BARNES, LAWRENCE ROBERT (trading as Barnes & Co.), York, chemist and druggist.

MARSTON, GEORGE HENRY, Lordship Terrace, East Dulwich, lately trading at Swiss Terrace, Forest Hill, Commercial Road, E., and Whately Road, East Dulwich, chemist.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

AVERY, ALFRED (trading as the Crayford Wine and Spirit Company, and Mineral Water Manufacturer), West Hill, Dartford, and Crayford, Kent. First meeting, March 23, Official Receiver's Office, Rochester. Public examination, April 5, Court House, Rochester.

LOCKWOOD, WILLIAM, & LEITH, JOHN, St. Helen's, chemical manufacturers. March 20, Official Receiver's Office, Liverpool. March 19, Court House, Liverpool.

RIPPON, EDWIN, Upper Street, Islington, chemist and druggist. March 22, 33 Carey Street, Lincoln's Inn. April 12, 34 Lincoln's Inn Fields.

ADJUDICATIONS.

MARSTON, GEORGE HENRY, Lordship Terrace, East Dulwich, Surrey, late of Swiss Terrace, Forest Hill, Commercial Road, and Whately Road, East Dulwich, chemist.

RIPPON, EDWIN, Upper Street, Islington, chemist and druggist.

NOTICES OF DIVIDENDS.

CANN, FREDERICK, Bridgnorth, veterinary surgeon. First div. of 11*s.*, any day, Official Receiver's Office, Ludlow.

SIMON, S. H., Moscow Court, Tower Hill, drysalter and commission agent. First and final div. of 4½*d.*, any day except Saturday, Chief Official Receiver's Office, 33 Carey Street, Lincoln's Inn.

APPLICATION FOR DEBTOR'S DISCHARGE.

WHITHAM, JOSEPH (trading as Whitham & Co., and as the Whitecroft Printing Company), Miles Platting, Pendleton, and Braxenden, Lancashire, also trading with T. Brayshaw, at Manchester, and residing at Nelson, Lancashire, chemical manufacturer, dyer, printer, and galvaniser. April 21, Manchester.

SCOTLAND (DIVIDEND).

Creditors of *ROBERT PARK*, 52 St. Enoch Square, Glasgow, and residing at 2 Nithsdale Place, Pollokshields, doctor of medicine, will receive a dividend, April 28, in the counting-house of J. Martin, 183 West George Street, Glasgow.

LIMITED LIABILITY COMPANIES AND THE PHARMACY BILL.

With reference to Section 13 of the Draft Pharmacy Act Amendment Bill, Messrs. William Harrington & Son and Messrs. Goulding & Co. in a joint letter protested against the requirement of that section that every shareholder in a limited liability company should be a qualified pharmacist. Messrs. Harrington & Son stated that their firm was established in 1805, Messrs. Goulding's in 1846, and both had been recently converted into joint-stock companies. They state that if the clause were made law it would very injuriously affect them. Messrs. Hamilton, Long & Co., of 3 Liver Sackville Street, also wrote, and stated that the business of their company was commenced in 1826, and the establishment remained private property down to 1878, when it became necessary, in order to carry out family arrangements, that it should be turned into a limited company. No change was made in the working of the concern, which was, as before, properly and efficiently carried out by qualified persons. All the directors of the company were also qualified and no unqualified shareholder was allowed to take any part in the management of the business. Should the clause be retained, the writers stated that they would have no alternative but to join with others in strenuous opposition to the Bill. Mr. Pring, writing on behalf of Messrs. Grattan & Co. asked that companies established prior to January, 1887, should be exempted from the clause; otherwise they would have to oppose the Bill.

THE PRESIDENT said he had an interview with Messrs. Harrington and Goulding, and told them that it had never been intended to interfere with existing companies; and he also pointed out to them that even under the original Pharmacy Act the trustees of their fathers' wills could have carried on the business for an indefinite period, provided that only qualified men were employed for that purpose. He also saw Dr. Hamilton, and informed him of the amendment to the 13th clause, which he (the President) was now about to make. It was only right that no injury should be done to vested interests, and that establishments, which during an unexpired state of the law, had, for family or other reasons, been converted into limited liability companies, and which were properly conducted by pharmaceutical chemists or apothecaries, should be allowed to remain as they were. In selecting a date at which the exemption he was about to propose should be limited, he had fixed on January 1, 1887, in order to prevent the possibility of companies being newly formed before the Act should become law.

MR. WELLS: Co-operative societies will ask for the same exemption, and will oppose you if it be not granted.

THE PRESIDENT said Clause 13, as it at present stood, was as follows:—

The provisions of section 30 of the principal Act shall extend and apply to corporations, companies, and co-partnerships, and every corporation, company, and co-partnership, or any member thereof, selling or keeping open shop for the retailing, dispensing, or compounding poisons or medical prescriptions, shall be liable to the penalties in that section mentioned, unless every member of such corporation, company, and co-partnership shall be a person duly qualified according to law to sell or keep open shop for the purposes aforesaid.

To that clause he proposed to add the following words:—

Provided always that nothing in this section contained shall extend to or affect any limited liability company which has been established for the purpose of continuing a business already legally existing in Ireland for the compounding of medical prescriptions and sale of poisons, and which has been duly registered prior to January 1, 1887, under the Joint Stock Companies Act.

MR. WELLS said that if the right of limited liability companies to an exemption were admitted, it would be a one-sided proceeding to refuse the same exemption to co-operative stores.

THE PRESIDENT: You must shut the door at some time.

DR. MONTGOMERY asked what the effect of the clauses would be on co-operative stores. Would they be allowed to go on compounding?

THE PRESIDENT: The clause as it originally stands enacts that every member of any company carrying on the dispensing business must be qualified.

THE VICE-PRESIDENT: Suppose you cut that clause out of the Bill altogether.

THE PRESIDENT: It was accepted by the Council years ago. Mr. GRINDLEY said the clause was a just one, but it would be turned into an argument against them.

MR. CHARLES EVANS: Are not co-operative stores "legally existing"?

THE PRESIDENT: I am afraid they are.

THE VICE-PRESIDENT said he had much pleasure in seconding the President's motion.

DR. MONTGOMERY said any Act that they should obtain should do away with pharmaceutical trading by co-operative stores as much as possible. They should have the interest of the Pharmaceutical Society at heart, as a first principle, independent of England or any other country. If they went on legalising those stores they might as well shut up.

THE PRESIDENT: We are doing the best we can to prevent their being legalised.

MR. WELLS: Under what rule will such houses be carried on in future if our Bill should pass?

THE PRESIDENT said they would come under Clause 12 of the Bill as follows:—

Every person lawfully keeping open shop for selling and retailing poisons, or dispensing or compounding medical prescriptions, shall personally manage and conduct such shop, and the retailing, dispensing, or compounding of poisons and medical prescriptions therein, or shall employ for the purpose aforesaid as an assistant or manager in such shop some person qualified according to law to keep open shop for the purpose aforesaid; and any person acting in contravention of this enactment shall for every such offence be liable to pay a penalty of 5*l.*: Provided that in the case of partners duly qualified according to law to keep open shop for the purposes aforesaid keeping more shops than one, nothing in this enactment contained shall be construed to render necessary the employment of any such qualified assistant or manager as long as every such shop is personally managed and conducted by one of such partners.

There was another clause empowering the Registrar of the Society to apply for the name of the legally qualified assistant or manager.

DR. MONTGOMERY said it would be still left open to limited companies to pay a small sum to a pharmaceutical chemist for the use of his name, and thus to go on grinding down the pharmaceutical profession.

THE PRESIDENT: The whole object of the clauses is to prevent that being done after a certain day. We can only fix a date and shut the door.

The motion of the President was unanimously agreed to.

THE DRAFT BILL.

A letter was read from Messrs. Casey & Clay enclosing the draft Bill and final observations of counsel. The letter stated that a Bill to amend the English Pharmacy Act had been introduced by the Earl of Milltown, and read a first time the previous week. A copy of it would be obtained by the writers as soon as it should be printed.

THE PRESIDENT remarked that the English Bill was only of an educational character; but on the preceding night an amendment of it was proposed involving the same point that the Council had been discussing—namely, the qualification of managers of branch houses. As regarded their own Bill nothing now remained but to get the amendment to which the Council had just agreed made in the draft, and have the latter placed in the hands of Lord Milltown as soon as possible.

MR. WELLS: What about approaching the Government?

THE PRESIDENT: Until Lord Milltown has taken our Bill in hand it would not be good taste on our part to do so. I do not think we shall be in a position to do anything with the Government until the Easter recess, when the Solicitor-General and Mr. Balfour will be here, and then we can approach them.

THE PRELIMINARY EXAMINATION.

A report was submitted from the Preliminary Examination Committee. It contained new regulations for the conduct of the Preliminary examination, including a chemical curriculum drawn up by the Vice-President and approved of by Dr. Tweedy. These regulations will meet some criticisms of Dr. Duffey in his report submitted to the January meeting of the Council. The object is to get rid of text-books, and to define exactly for the candidate the subjects in which he would be examined.

On the motion of Mr. Allen, seconded by Mr. Grindley, the report was adopted.



The following applications for Patents have been registered at the Patent Office.

- Aerated Beverage.**—3,171.—March 1, 1888.—A. J. M. Lisle. An aerated beverage for invalid and other uses.
- Antiseptics.**—1,696.—February 4, 1888.—W. Black and W. L. Rennoldson. Manufacture of antiseptics.
- Brandy.**—2,099.—February 11, 1888.—H. de Soberon. Liquor resembling brandy, and process for manufacturing the same.
- Breast-reliever.**—2,153.—February 13, 1888.—G. R. Jackson and J. Graham. Apparatus for withdrawing milk from the breasts of women.
- Infusions.**—1,739.—February 6, 1888.—F. Hall. Apparatus for making infusions of tea, and other like infusions.
- Inhaler.**—2,682.—February 23, 1888.—C. Adamson. Chemical vapour inhaler.—2,906—February 27, 1888.—J. B. Butcher. Medicinal inhalers.
- Insecticides.**—2,463.—February 18, 1888.—A. Booty. Composition for dispelling flies and grub from turnips and other plants.
- Loofah.**—2,359.—February 16, 1888.—A. Elste and F. Stoll. Treatment of loofah.
- Medicated Cigars.**—1,772.—February 6, 1888.—P. Jensen. Medicated cigars or cigarettes and smoking tobacco.
- Oils and Varnishes.**—2,344.—February 16, 1888.—W. S. Somers. An improvement in drying oils and varnishes.—2,455.—February 18, 1888.—F. Crane. Varnishes and lacquers.—2,509.—February 20, 1888.—G. Hand-Smith. Treatment of gums, fossiliferous gums, or gum resins in the manufacture of varnishes, &c.—2,512—February 20, 1888.—Ditto. And apparatus.—2,514.—February 20, 1888.—Ditto. In order to effect their solution.
- Ointments, &c.**—1,910.—February 8, 1888.—A. F. E. de St. Dalmas. Prepared sheets of leather and fabric for the application of ointments, lotions, poultices, and other medicaments to the human body.
- Oleum Rusci.**—2,870.—February 25, 1888.—E. Tutbill. An extract of oil or tar from the birch tree bark, to be used in the process of tanning or preserving hides, skins, furs, and for destroying moths and insects.
- Pepper.**—2,190.—February 14, 1888.—A. Dunderdale. Manufacture of light-coloured or white pepper-corns, and also of colouring matter from black or dark coloured pepper-corns.
- Phosphorus.**—1,693.—February 4, 1888.—A. Nicolle. Manufacture of phosphorus.
- Potassium Chlorate.**—305.—January 7, 1888.—J. R. Wylde, M. J. Hammill, and H. Auer. Separation of chlorate of potash from solutions thereof.—1,560 and 1,561.—February 2, 1888.—C. N. Hake.—Manufacture of chlorate of potash.
- Ringworm.**—2,219.—February 14, 1888.—A. Campbell. Cure of "Tinea tonsurans" (ringworm of scalp) by means of gases or vapours brought and kept in contact by means of special apparatus.
- Soap (Marine).**—2,303.—February 15, 1888.—O. H. von Wilke. Manufacture of soap soluble in sea water.
- Sock (Medicated).**—1,047.—January 24, 1888.—J. Bigford. The "Eureka" perforated, ventilating, and medicated sock.
- Spirometer.**—1,746.—February 6, 1888.—J. F. Matthewson. Spirometers for testing the strength of the lungs.

- Suppositories.**—479.—January 11, 1888.—J. D. Gale, and W. Morgan. "Obstetric cones."
- Surgical.**—393.—January 10, 1888.—A. S. Faulkner. Stethoscopes.—647.—January 16, 1888.—H. J. A. vagina tube shield.—1,225.—January 26, 1888.—H. H. Lake.—A composition for dressing wounds.—2,348.—February 16, 1888.—T. Crookes. A combination surgical knife.—2,493—February 20, 1888.—T. Rogers. Trusses and materials used in their manufacture.

- Tracheotomy.**—2,337.—February 16, 1888.—F. B. Jones. Surgical and medical appliances for use in tracheotomy.

Specifications of Patents recently published.

- 1886.
- 16,979. A. W. McIlwaine. Extracting oils by volatile solvents. 6d.
- 1887.
- 2,297. A. and L. Q. Brin. Treating saccharin, &c.
- 2,298. A. and L. Q. Brin. Treating saccharin, &c.
- 2,738. A. Wilesmith. Feeding-bottles. 8d.
- 2,741. C. E. Gittins. Softening water. 8d.
- 2,984. J. Lakeman. Feeding-bottles. 8d.
- 3,667. F. Hocking. Producing fresh water from salt water. 8d.
- 3,736. L. Schaffer. Abdominal belts for reducing corpulency. 8d.
- 3,816. J. W. Pownall. Inhaling vapour of chloride ammonium.
- 4,201. J. Taylor. Nitric acid. 6d.
- 4,203. T. Kerfoot. Dry saccharated extract of tea. 4d.
- 4,251. J. Holmes. Cap for bottles, &c. 6d.
- 4,578. J. Baird. Polish, &c. 6d.
- 5,836. K. Schulze. Administering vapours for medicinal purposes. 8d.
- 8,666. A. M. and J. F. Chance. Treating alkali waste to obtain sulphuretted hydrogen. 8d.
- 9,225. E. A. B. Béamont. Administering medicines. 6d.
- 9,620. A. Carter. Preserving liquid mustard. 4d.
- 10,020. I. A. Best. Splints for fractured limbs. 8d.
- 10,181. J. Schmitt. Surgical knives. 6d.
- 10,308. E. V. and E. Goad. Tooth-brushes. 8d.
- 10,924. H. W. Sitwell and others. Surgical water bottles. 6d.
- 11,462. J. Macdonald. Artificial teeth. 4d.
- 11,500. C. J. E. de Haën. Manufacture and application of the compounds of fluoride of antimony with the oxides or sulphates of sodium, &c. 6d.
- 11,610. J. E. Warren and F. A. Cloudman. Recovery of chemicals from spent liquors of pulp digesters. 8d.
- 11,647. S. F. Smith. Combined respirator and inhaler. 6d.
- 12,121. E. S. Hermes. Bottle for poisonous liquids. 8d.
- 12,398. T. F. Edgeworth. Inhaler. 8d.
- 12,486. O. M. Thowless. Producing sodium and potassium. &c. 8d.
- 12,632. J. C. Lyman. Waterproof compositions. 4d.
- 13,409. S. S. Rowell and J. W. Newell. Plumbic litharge. 8d.
- 13,500. J. W. Tallmadge. Chemical fluid ink eraser. 4d.
- 14,308. E. V. and E. Goad. Tooth-brushes. 8d.
- 14,429. J. E. Darby and E. Blakeslee. Impregnating skin with rouge. 4d.
- 15,530. T. Child. Aerated beverages. 4d.
- 16,587. D. Howells. Embrocation for rheumatism. 4d.
- 16,795. J. Grossmann. Hygienic bandage for women. 6d.
- 17,332. M. B. Scott. Chest and body protectors. 6d.
- 17,369. H. B. Appleby. Materials for surgical dressings, &c. 4d.

TRADE-MARKS APPLIED FOR.

The *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration. The address of the Patent Office is Southampton Buildings, London, W.C.

From the "*Trade Marks Journal*," March 7, 1888.

"**HEART TONIC**," and figure of a heart; for a chemical preparation for use in medicine and pharmacy. By L. A. White, Percy Terrace, Moss Lane East, Manchester. 65,826.

"**GLANVILLE'S HYDROSULPHATE OF IRON MIXTURE**," and other wording on label; for a medicine for human use. By F. Glanville, 317 Fulham Road, Brompton, S.W. 69,999.

"**COMPOUND CASTOR-OIL LOZENGES**," and other wording on label; for medicated lozenges. By E. Roberts, confectioner, 270 Camberwell Road, S.E. 66,413.

"**JOHN EVE & CO'S 'KELPINE' SYRUP**" (in script); for a preparation for infants' teething. By C. Grieve (trading as John Eve & Co.), 330 High Holborn, W.C. 66,909.

"**HINELIFE**" for brushes. By W. L. B. Hinde (trading as Hinde & Co.), Oxford Street, Birmingham. 68,121.

"**AZOTENE**"; for a medicinal preparation. By J. Sellers, 3 Arrington Road, E.C. 68,264.

"**MALOCK'S KILL WASP**," and other wording on label; for a preparation for exterminating insects. By W. T. Mildock, chemist, Fulborough. 68,671.

Figure of a cake of sapollo; for a cleansing preparation and a pushing material. By E. Morgan's Son's Co., 31 Snow Hill, E.C. 68,740-1.

"**HAS NO HANA**," and other wording on fancy label; for an article of perfumery. By J. L. Grossmith, 85 Newgate Street, E.C. 68,888. Also "The Verus Nature Perfumery," for perfumery (68,994); and "Emolio," for an article of perfumery (70,571).

"**RUSSEN SAREPTA FLUID**," and other wording; for a medicinal preparation. By W. T. Gunson and C. H. C. Bodé (trading as the Russian Sarepta Fluid Co.), 34 Rirkmanshulme Lane, Longsight, Manchester. 69,003.

"**MARY'S ALMOND TABLET**," and other wording on round label; for a medicinal toilet preparation. By R. Hendon & Sons, Berners Street, W., and City Road, E. 69,085.

"**NIGH-BLOOMING CEREUS**," under a crown, and "MANDEIRA," under a crown; for perfumery. By W. S. Thompson, trading as The Crown Perfumery Company, New Fairfield Works, Old Bailey, E.C. 69,790-1.

"**GALVANO BOB**," and figures on round label; for a galvanic battery for medicinal purposes, to be placed in the heel of a boot. By John Court, 136 Brompton Road, S.W. 70,0.

"**AULD CHEMICAL DUBBING**"; for the same. By Wm. Auld, 375 High Street, Edinburgh. 70,253.

From the "*Trade Marks Journal*," March 14, 1888.

"**ASEPTIC**" on label, and signature; for pharmaceutical goods. Class 3. By C. Callin, Chemist, Antwerp. 66,9.

Signatures of the depositors on round label, with motto on main; for chemical substances. (Class 2.) Medicines and perfumery. By Philip Thomas and Arden Thomas, trading as Thomas Brothers, Chemists, Cheltenham. 66,24.

Advertising matter; for a whooping-cough powder. By R. Hatch, 30 Hatcham Park Road, New Cross, S.E. 67,3.

"**CURR'S ESSENCE OF DANDELION COFFEE**," and other wording on double label; for coffee. By Thomas Curr & Co., 22 Schoolhill, Aberdeen. 67,469.

Heraldic design, and motto, "Purity and Strength"; for mineral and aerated waters. By F. Daviss, Walsall 68,115.

"**PARANECTAR**," and other wording on label; for an aerated beverage. By Gostling & Co., Diss. 68,560.

"**THE CASTLE BRAND**," other wording, and figure of Edinburgh Castle; for coffee and milk, &c. "The Pyramid Brand," other wording, and figure of pyramid; for essences of coffee. By T. Symington & Co., Edinburgh and the East India Avenue, London. 68,715-6.

"**SPARKLING NON-ALCOHOLIC**," and figure on label; for aerated beverages. By Stevenson & Howell, 95A Southwark Street, S.E. 68,944.

"**ANTIRHAGASIA**," other wording, and figure on label, for a preparation for chapped hands, lips, &c. By F. B. Wride, Chemist, Shirley. 69,142.

"**STEPHENSON BROTHERS' SUPERIOR FURNITURE CREAM**," and other wording on label (two kinds); for furniture cream. "Stephenson Brothers' Superior Metal Paste"; for polishing paste. By G. B. Stephenson and G. Speight, trading as Stephenson Brothers, Bradford. 69,891-3.

Obituary.

DAVIES.—On March 12, Mr. John Davies, chemist and druggist, Llanybyther. Aged 50.

DUFTY.—On March 5, Mr. Samuel Dufty, homœopathic chemist, West Street, Sheffield. Aged 46. The deceased gentleman leaves a widow and eight children. Mr. Dufty had considerable literary ability, and was the author of several poems, dealing with local and other subjects.

FOWKE.—On February 27, Mr. Thomas Edward Fowke, chemist and druggist, Market Square, Stafford. Aged 45.

GILL.—On March 10, at 193 Whitham Road, Sheffield, Mr. Henry Gill, wholesale druggist, 15 Scotland Street. Aged 68.

MURRAY.—On March 1, at her residence, 19 Temple Street, Dublin, of pulmonary congestion, Mary, relict of the late Sir James Murray, M.D., and sole surviving niece of the late Charles McGarel, of Belgrave Square, S.W. Aged 75.

UDALL.—We hear of the death at Shanghai in January last of Mr. Daniel Udall, chemist and druggist, in the establishment of Messrs. Llewellyn & Co., of Shanghai. Mr. Udall's death was occasioned by an attack of virulent small pox. He was about 38 years of age, and was much esteemed among the English community of Shanghai. He was well known in London and Paris pharmaceutical circles, and had lived with Messrs. Savory & Moore, Lancaster Gate; Gulliver, Lower Belgrave Street; Hartnoll & Co., Tichborne Street; and with Messrs. Roberts & Co., Paris; and lastly as manager of Mr. Hogg's pharmacy in the Avenue des Champs Elysées.

MEDICINAL PRODUCTS OF SOUTH AMERICA.—Dr. H. H. Rusby, of whose lecture on South American medicinal products before the Pittsburgh College of Pharmacy we recently made mention, has been badly misquoted by some of the Pittsburgh papers, who reported what purported to be his statements. The doctor has now published a true version of his lecture, varying in many essential particulars from that put in his mouth by the Pittsburgh reporters. The doctor's tour was undertaken in the interests of the firm of Parke, Davis & Co., of Detroit, for the purpose of investigating what new South American drugs it would be worth while to introduce into commerce. Dr. Rusby had over 300 specimens of "new drugs and remedies" submitted to him, and rejected them all but two, viz., the *Pichi-Fabiana imbricata*, a valuable sedative for the urinary tract, and the *Cocillina-Sycocarpus Rusbyi*, which has been found valuable in the treatment of certain throat diseases. This shows how great a discretion should be exercised in placing new articles upon the market.

SOME DRUGGISTS' SPECIALITIES.

Mutual assistance for this department, which is a standing feature of THE CHEMIST AND DRUGGIST, is invited from generous pharmacists.

Lime Cream (Superior).

Crème d'Amand.	4 parts
Glycerin.	4 "
Ol. amygd.	40 "
Aque	35 "
Perf.	q.s. (or 1 part)

Mix (in order written) in large mortar.

Calf's Foot Cough Jelly.

Morph. acet.	54 grs.
Acid. citric.	216 "
Aque	30 oz.
Gelatin	3 " (troy)
Glycerin	72 "
Tinct. tolu	1/2 "
S. V. R.	1/2 "
Vin. ipecac.	1 "
Ess. vanille	1/4 "
Fach. ust.	q.s.
Aque q.s. to	108 oz.

Misc. spec. art.

Adult dose: 5j. to ij.

Lanolin Hair Cream.

1. Crème d'Amand. 1 drachm
- Glycerin. 1 "
2. Ol. amygd. 6 drachms
- Lanolin 1/2 oz.
- Otto de rose 8 gtt.
3. Tinct. canthar. 2 drachms
- Aque ad 4 oz.

Mix, in separate mortars, the first two lots; gradually add No. 2 to No. 1, then stir No. 3 gradually in.

Solution Spermaceti.

Pulv. cetacci	3viij.
Sacch. alb.	3iv.
Vitelli ovi	No. iij.
Aque destillate	3iv.
Spt. myristice	3xxxij.

M. secund. artem.

Steer's Opodeldcoe.

Sapo. Windsor alb.	3vj.
Aque destill.	3viij.
Sp. vin. rect.	3xvj.
Camphor.	3vj.
Ol. lavand. exot.	3ij.
Ol. rosemary exot.	3ij.
Liq. ammon. fort.	3iij.

M. secund. artem.

Balsam Locatelli.

Ol. olive opt.	3viij.
Resin. flav.	3vj.
Cera flav.	3viij.
Rass. gaan. rub.	3j.

M. secund. artem.

H. MACHON.

Headache Tonic, or Pick-me-up.

Caryoph.	3ij.
Rad. valerian.	3iv.
Cocci cacti	3j.
Liq. am. fort.	3iss.
Sp. vin. rect.	3xij.
Aq. destill.	3xij.
Macerate for a week; then add	
Ammon. brom.	3iss.
Potass. brom.	3iss.

and keep for another week. Filter, and make up to 24 oz. with water.

Dose: 2 drachms in water. Will usually relieve headache in ten minutes.

(18/1.)

Chemists at Edin

WILLIAM CROOKES, F.R.S.,
PRESIDENT OF THE CHEMICAL SOCIETY.

WE doubt if the Chemical Society could have chosen for their president any one in this country with such a brilliant all-round scientific record as that of the gentleman who has held that distinguished position during the past year. Mr. Crookes has been a prominent and successful in-



WILLIAM CROOKES, F.R.S.

investigator in so many of the highways of chemical and physical research, that it is difficult to assign any special character to his life work. At the present time he is the pioneer in the region of scientific speculation; and other periods in his career the manufacture of beet-root sugar, dyeing and calico-printing, and the wage question have seemed to absorb his attention. Between these studies of what would be distinguished as practical subjects he has interjected his wonderfully delicate experiments on "radiant matter," experiments which, while they seemed at first sight to lead to nothing beyond the construction of the pretty battery of electric light, have not very useful radiometer, actually made a possibility and a success by his demonstration of the possibility of producing and managing the electric spark in extreme vacua. Among the scientists who have in recent years advanced so rapidly the utilisation of electric light, Mr. Crookes has been eminent. In meteorology, in photography, and especially in the development of spectrum analysis, Mr. Crookes has also made his mark. Moreover, he is the only living English discoverer of an element.

Mr. Crookes was born in London in 1832. In 1843 he entered the Royal College of Chemistry as a pupil of the distinguished chemist Dr. Hofmann, now of the University of Berlin, and at the age of seventeen he gained the Ashborton Scholarship. After two years' study he became, first junior, then senior, assistant to Dr. Hofmann in the chemical department, and was appointed to superintend the meteorological department of the Radcliffe Observatory, Oxford. In 1855 he became teacher of chemistry at the Science College, Chester. Returning to London, Mr. Crookes added literary labours to his other occupations by the establishment of the *Chemical News*, which he owns and edits to this day. This journal has been a quarter of a century richer in research than any previous world's history, and a reference to the long

to which the *Chemical News* now extends will show that the editor has managed, in the moderate space at his disposal, to keep the record of both home and foreign investigation well posted up. The fact that Mr. Crookes has been left so many years in almost undisturbed possession of the particular corner of the field of journalism which he marked out for himself nearly thirty years since is evidence of the satisfactory character of his stewardship.

Besides the *Chemical News*, Mr. Crookes has edited the *Quarterly Journal of Science*, and has published the following works: "Select Methods in Chemical Analysis," "Manufacture of Beet-root Sugar in England," "Handbook of Dyeing and Calico-printing," and "Dyeing and Tissue-printing"—one of the "Technological Handbooks" prepared for the examinations of the City and Guilds of London Institute. He is so joint author of the English adaptation of Kerl's "Treatise in Metallurgy." He has edited the last three editions of Mitchell's "Manual of Practical Assaying," and has trans-

put it aside. Subsequently, wanting some tellurium for experimental purposes, he endeavoured to obtain it from this residue, but after trying various methods for isolating that metal, he at last resolved to test the substance spectrally. Neither selenium nor tellurium present any strongly-marked bands which would be a certain guide in such an examination, so that not much was expected from this analysis. On introducing a portion of the residue into a gas-flame abundant evidence of the presence of selenium was obtained; but as the alternate light and dark bands due to that element became fainter, and while expecting the appearance of the somewhat similar but closer bands of tellurium, a bright green line suddenly flashed into view and quickly disappeared. The experimenter had had some years' acquaintance with most of the artificial spectra and had never met with an isolated green line in that portion of the spectrum before. His attention was arrested, and after thought and further experiment he became convinced that he had found a hitherto



LIBRARY.

lated into English and edited Reimann's "Aniline and its Derivatives," Wagner's "Chemical Technology," Auerbach's "Naphthalene and its Derivatives," and Ville's "Artificial Nitrates." Mr. Crookes is an authority on sanitary questions, especially the disposal of town-sewage, and his views have been laid before the public in two pamphlets—"A Solution of the Sewage Question" and "The Profitable Disposal of Sewage." In conjunction with Drs. Odling and Tidy, Mr. Crookes is now investigating the sanitary condition of the water-supply of London. This list indicates only a section of the studies which Mr. Crookes has been engaged in. In 1861 Mr. Crookes announced the discovery which at once made him famous among scientific men, and with which his name will ever be associated. He was working on a mineraliferous deposit from the sulphuric acid manufactory at Harrogate, in the Harz Mountains. After distilling some pure selenium prepared from this deposit a considerable residue was left behind in the retort. This, at the time, he supposed would contain tellurium, and for the moment he

unknown element. He at first regarded it as a metalloid but further examination proved it to be a true metal. He first separated some in a distinct metallic form in September, 1861, six months after the original discovery, and in May of the following year exhibited it in the International Exhibition in London. He named it from the Greek word *thallos*, meaning a green bud. In special recognition of this brilliant research Mr. Crookes was elected a Fellow of the Royal Society in 1863. During the next ten years he devoted much time and patient labour to researches into the atomic weight, the occurrence, distribution, and reactions of his new element. He detected it in many kinds of copper and iron pyrites, in crude sulphur, in the flue deposits of pyrites burners, but usually in very minute quantities. In its chemical reactions thallium differs from all other metals. In many respects it resembles the alkali metals, but it is, however, most closely allied to the heavy metals, especially to lead, which it resembles in appearance, density, melting-point, specific heat, and electric conductivity.

These studies did not prevent the prosecution of other investigations. In 1865 Mr. Crookes discovered a process for separating gold and silver from their ores by means of sodium amalgamation, which is now very extensively adopted, and is the most economical method in use. In 1866 he was appointed by the Government to report upon the application of disinfectants in arresting the spread of the cattle plague, which in that year excited much alarm in England.

In 1871 he was a member of the English expedition to Oran to report upon the total phase of the solar eclipse which occurred in December of that year.

In 1872 he commenced his experiments on "Repulsion Resulting from Radiation." Numerous papers, embodying the record of researches on this subject, were read before the Royal Society between this date and 1880. In these Mr. Crookes showed the effect of light and heat on the molecules of gases in atmospheres of various rarefactions, and he illus-

At one time in his career—about the year 1871—Mr. Crookes entered upon an investigation which excited great interest, but in which he failed to satisfy the scientific world of the accuracy of his observations. Mr. Home, the famous spiritualist, submitted himself, and the manifestations of which he was at times the subject, entirely to Mr. Crookes' analysis. In an article published by the latter he declares his belief that certain phenomena observed could not be due to tricks,legerdemain, or mechanical arrangements, and he proposed the term "psychic force" not as an explanation of our as a convenient definition, for such manifestations. Some smart conflicts followed this remarkable declaration, in which from a literary point of view, Mr. Crookes certainly did not get worsted. We believe that we are correct in adding that Mr. Crookes has never abandoned his faith either in Mr. Home or in psychic force, and he is always ready to chivalrously defend the good faith of the late notable "medium."



CHEMICAL LABORATORY.

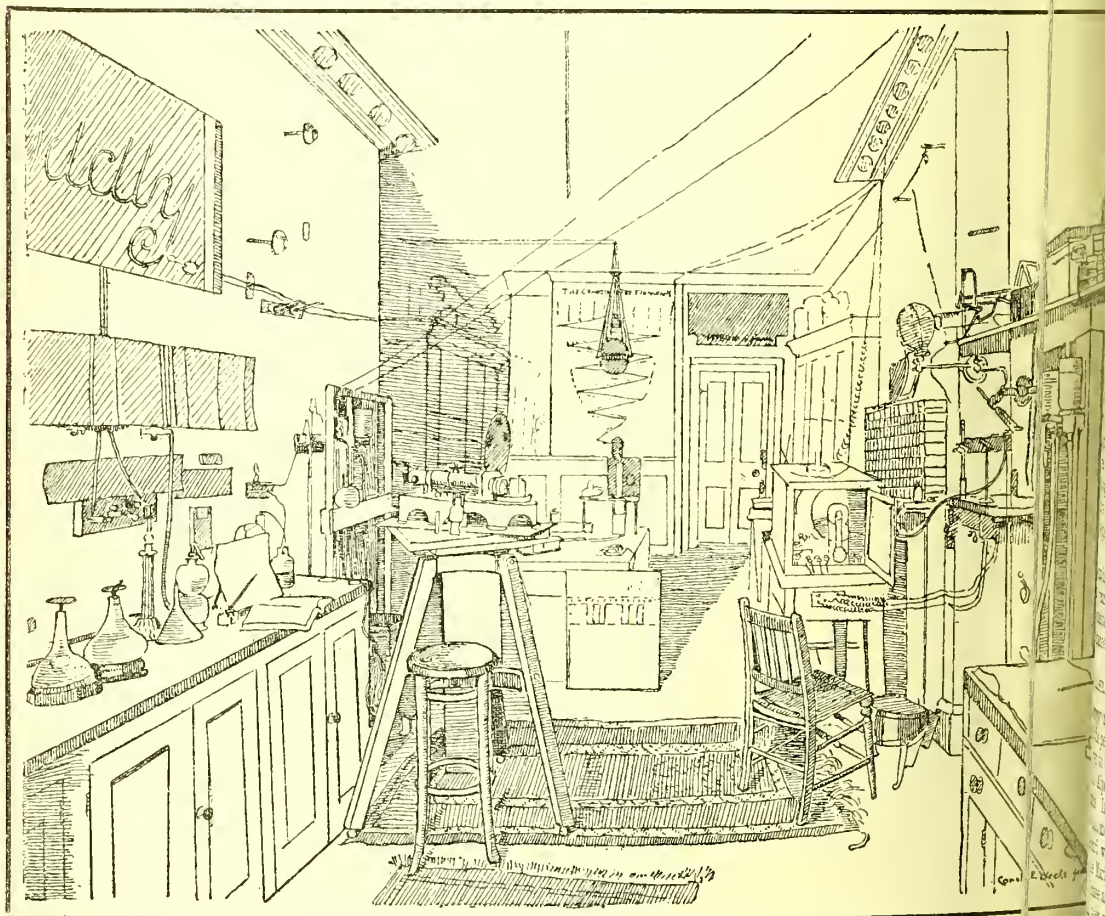
trated his observations by the "radiometer" and the "cathoscope," instruments of great beauty and delicacy. He showed that it was possible to measure the force of motion among the molecules of gases, and incidentally he showed how to produce vacua of far greater rarefaction than had ever before been obtained. He reduced air to fifty millionth of an atmosphere, and in a cubic centimetre of such an atmosphere he computed there were contained no less than 20 billions of molecules. Later still he showed that gases when very highly rarefied lose most of the ordinary properties of matter, and pass into a fourth or ultra-gaseous condition.

In 1875 he was awarded by the Royal Society a gold medal for his researches in chemical and physical science, and in 1877 and 1878 was selected Bakerian Lecturer of the same society. In 1880 the French Academy of Sciences bestowed upon him a gold medal and an extraordinary prize of 3,000*fr.* in recognition of his discoveries in molecular physics and radiant matter.

Some time since we had occasion to call upon Mr. Crookes at his handsome residence in Kensington Park Gardens. Chemistry and its associate sciences have been liberally with their suitor in this case, as we found him surrounded with luxury enough to enervate a determined student. His house is well known in the electrical world, as it was one of the first where electric light was given a fair chance regardless of expense, and the great extent the wires were laid by his own hands. The beauty of the fairy light can be turned on to any part of the house, and associated as it is with artistic decorations and furniture, his rooms at night present an appearance of refined beauty and suggests, we hope, a future of general domestic use in advance of our present standard as ours is of the tallow-candle era. Mr. Crookes himself occupies a spacious room on the first floor, intended by the architect for a billiard-room, but now dedicated to science, and art.

in the centre is a larger bench, at which the various fractionation operations, such as solution, filtration, and evaporation, are performed. The east wall of the room is occupied with a fume chamber and sink, the latter of which is provided with numerous dripping racks. The reagent shelves are on the opposite walls. All the bottles are made of what is called the "David Forbes" glass, which is less readily attacked by solutions than any other kind of glass. Mr. Crookes, however, has to get his bottles specially made; they are shoulderless, and the stoppers have mushroom tops, which is a very convenient form, as it keeps the neck of the bottle free from dust and provides good leverage for the removal of the stopper. Most of the work done in this room is in the nature of fractionations, and each stage of an experiment, with its results, and the time at which the work was done, are recorded in a substantial and large-sized laboratory-book. We found from the note in

From the chemical laboratory we pass into the mechanical room. This is fitted with benches for glass and metal work, and the apparatus, such as vacuum tubes for the spectroscopic examination of radiant matter, and the L-shaped wedge tubes for examining fractionation solutions, being made on the premises. It is the physical laboratory, on the west side of the mechanical room and opening into the library, which is the most interesting room. Here are kept the space specimens of all important substances and solutions which have been the bases of theories promoted by Mr. Crookes during the past quarter of a century. Each specimen is packed in a box. The principal use of this laboratory is for spectroscopic work, and this may be said to be of three kinds—(1) preliminary observations of absorption spectra, (2) observations of the electric spark in vacuum, and (3) corroborative observations with a very fine instrument. As soon as a fractionation of a substance, say yttria, is finished,



PHYSICAL LABORATORY.

this book, made on the morning that we visited the laboratory, that the 714th fractionation of yttria was being worked at, and we traced this set of experiments as far back as 1881, and yet had not exhausted the record; the fact is that all the work which Mr. Crookes has done has had a common origin. The selenocyanides created intimacy with selenium; a seleniferous deposit yielded him the element thallium; the spectroscopic study of that led to various optical researches, which required vacuum apparatus. A practical knowledge of the latter naturally induced Mr. Crookes to study the possibilities of the glow lamp when electric lighting became a craze; and so the work has gone on. One can scarcely see the connection between many of the papers. What, for instance, has the photography of the moon to do with the genesis of the elements? Apparently nothing; but a search of Mr. Crookes's note-books shows that both subjects are natural outcomes of his lifelong research.

A tubeful of the solution is at once taken to the physical laboratory and examined with the small lines are observed and mapped down by a note of the observation made. In thousands of such observations with the Mr. Crookes has been enabled to show the individual bands of the half-dozen or so that constitute the absorption spectrum of that body, and he has so separated yttria into individual lines, which are chemically identical, but molecularly different. The work with the spark spectrum is carried on for there are several installations of electricity which can be utilised at any moment and thus the spectrum of samarium, the rare earth, or any other physical experiment of this kind requiring extensive preparation and execution is shown as easily and quickly as the existence of sulphate can be proved in any solution.

Crookes to use his finest spectroscope, for by long experience he had his *alter ego* know so well what the smaller indicates that the large instrument has only to be added to win a paper for some scientific society has to be written. In this physical laboratory are also placed the excellent Spiegel pumps, with which Mr. Crookes has produced the greatest degree of rarefaction known.

Work in the laboratories is daily carried on as if it were a laboratory attached to a commercial house. The assistant works at a six-hour every day, and puts in an honest day's

If he takes off at any time his notes in the laboratory books show how far the experiment has advanced, and it can be taken up by Mr. Crookes and finished with the knowledge of what has preceded. So also in the scientific sense, it is obvious that this complete system of making materials materially simplify what is generally a tedious process, viz., transmitting facts and figures into an intelligible paper or reasonable hypothesis. So simple, indeed, does the process become that Mr. Crookes, gifted with an inventive merry, sits down when the notes become tedious, and prepares a monograph or one of a series of papers for the Royal Society.

It is not possible to do adequate justice to the work and merits in the private laboratories; but perhaps details of secondary importance in comparison with the virtues which have acted this modern philosopher in his labours, continuity, method, and Perseverance.

THE FLOWER INDUSTRY OF GRASSE.

ON this subject was read before the Chemists' Association on March 8 by Mr. F. W. Warrick, and was listened to with much interest.

Warrick first apologised for presenting a paper on such a plain subject to men who had shown themselves such advocates of the higher pharmacy, of the "ologies" of reference to groceries, perfumeries, and other "eries." Perfumery would not hope to take an elevated position in materia pharmaceutica; it might be accorded a place adjacent, if only on the plea that those also serve who stand and wait.

Warrick mentioned that his family had been connected with this industry for many years, and that for many of the years in the paper he was indebted to a cousin who had had years' practical experience in the south, and who was that evening.

GRASSE.

The town of Grasse is perhaps more celebrated than any for its connection with the perfume industry in a province which is itself well known to be its home.

The department of the Alpes Maritimes, forms the eastern corner of France. Its most prominent geographical features are an elevated mountain range, a portion of the Alps, and a long seaboard washed by the Mediterranean—whence the name Alpes Maritimes.

Calcareous hills round Grasse and to the north of Nice are no less fertile, though they were at one time well wooded; the rearing of these parts has, however, made great progress.

Nearer the sea vegetation is less rare, and there are many a montory excites the just admiration of the visitor by its growth of olives, orange and lemon trees, and other fruit-trees. Who that has ever sojourned in Provence can wonder that Goethe's "Mignon" should find a return to these sunny regions?

On these shores on the first day of this year found the lines more poetical than true—

Where a wisp of soft from the blue heaven blows,
And the groves are of laurel and myrtle and rose;

and their fires and coughed and groaned us, and entertained each other with accounts of their misadventures. But this was exceptional, and the climate of the Alpes Maritimes is in the whole as near perfection as anywhere. This, however, is not due to its latitude, but to its happy protection from the north by the Alps, and to its being balled on the south by the warm Mediterranean and the soft breezes of an eastern wind (which has a different reputation to that which it

does with us). The mistral, or cold breeze from the hills, is indeed the only climatic enemy, if we except an occasional earthquake.

The town of Grasse itself is situated in the southern portion of the department, and enjoys its fair share of the advantages this situation affords. It is about ten miles from Cannes (Lord Brougham's creation), and, as the crow flies, twenty-five miles from Nice, though about forty miles by rail, for the line runs down to Cannes and thence along the shore to Nice.

Built on the side of a hill some 1,000 feet above the level of the sea, the town commands magnificent views over the surrounding country, especially in the direction of the sea, which is gloriously visible. An abundant stream, the Foux, issuing from the rocks just above the town, is the all-productive genius of the place; it feeds a hundred fountains and as many factories, and then gives life to the neighbouring fields and gardens.

[Mr. Warrick exhibited a number of fine photographs of Grasse, from one of which the view on the following page is taken. It shows Grasse from the south-west. The first square tower on the left—which does not show up so well in the engraving, the ground behind it being too dark—is the only building of Roman origin which has survived the several occasions of total destruction which the town has experienced at the hands of invaders. The second tower, with a belfry, is the parish church. This used to be a cathedral, with a bishop's palace adjoining. The bishop's palace has been secularised, and is now the town hall. So, also, has the neighbouring building, from which arises the high chimney which shows up against the sky; this was once a nunnery, then a monastery, and is at present Messrs. Warrick Frères' factory. In the foreground are olive trees in a rather wild condition, and terraces of jasmin plants set out in rows.]

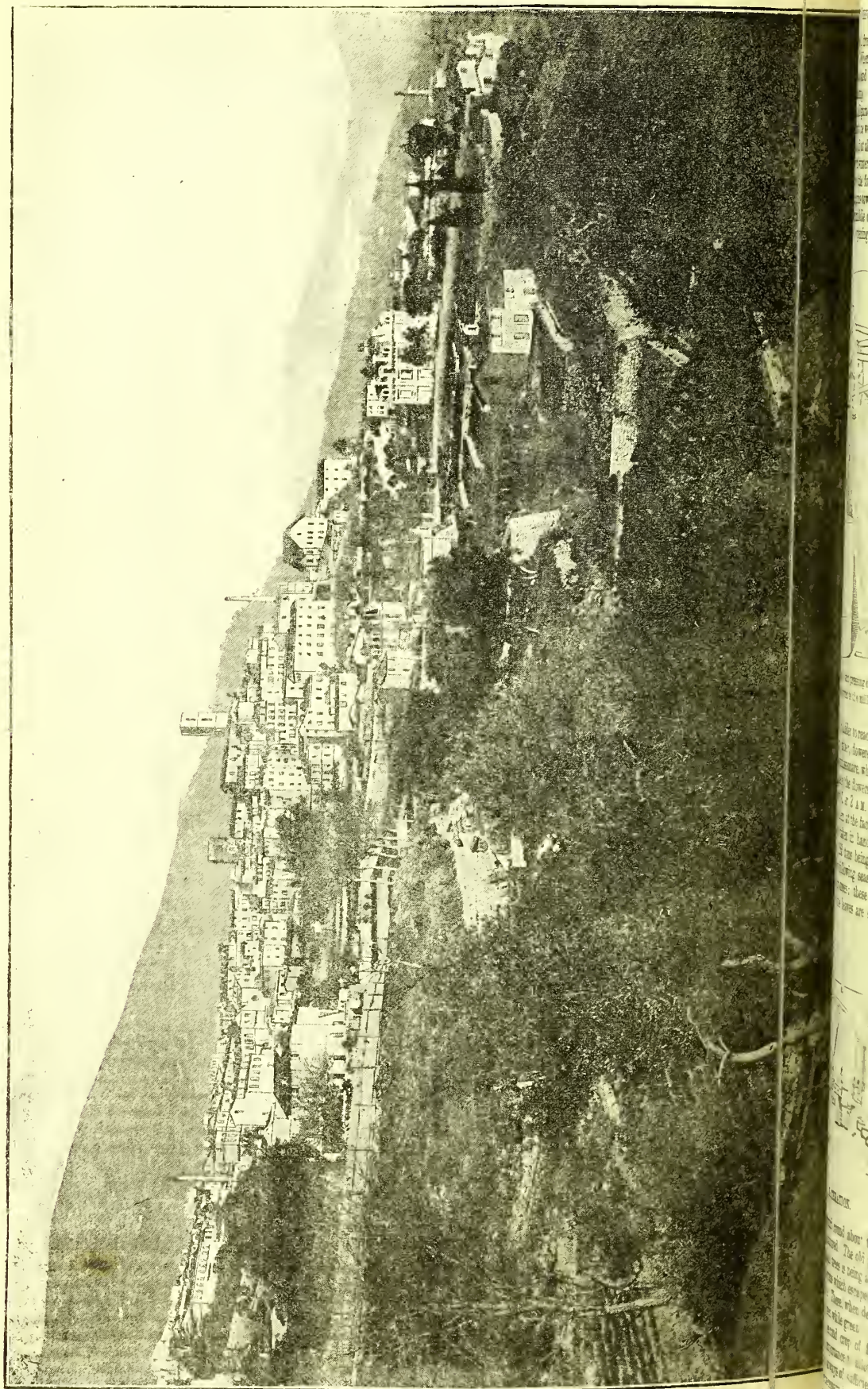
The population of Grasse is about 12,000, and the flora of its environs represents almost all the botany of Europe. Among the splendid pasture lands, 7,000 feet above the sea, are fields of lavender, thyme, &c. From 7,000 to 6,000 feet there are forests of pine and other gymnosperms. From 6,000 to 4,000 feet firs and the beech are the most prominent trees. Between 4,000 and 2,000 feet we find our familiar friends the oak, the chestnut, cereals, maize, potatoes. Below this is the Mediterranean region. Here orange, lemon, fig, and olive trees, the vine, mulberry, &c., flourish in the open, as well as any number of exotics, palms, aloes, cactuses, castor-oil plants, &c. It is in this region that nature with lavish hand bestows her flowers, which, unlike their compeers in other lands, are not born to waste their fragrance on the desert air or to die "like the bubble on the fountain," but rather (to paraphrase George Eliot's lofty words) to die, and live again in fats and oils, made nobler by their presence.

The following are the plants put under contribution by the perfume factories of the district, viz., the orange-tree, bitter and sweet, the lemon, eucalyptus, myrtle, bay-laurel, cherry-laurel, elder; the labiates: lavender, spike, thyme, &c.; the umbelliferous fennel and parsley, the composite wormwood and tarragon, and, more delicate than these, the rose, geranium, cassia, jasmin, jonquil, mignonette, and violet.

THE PERFUME FACTORY.

In the perfume factory everything is done by steam. Starting from the engine-room at the bottom, the visitor next enters the receiving-room, where early in the morning the chattering patois-speaking natives come to deliver the flowers for the supply of which they have contracted. The next room is occupied with a number of steam-jacketed pans, a mill, and hydraulic presses. Next comes the still-room, the stills in which are all heated by steam. In the "extract" department, which is next reached, are large tinned copper drums, fitted with stirrers, revolving in opposite directions on vertical axes. Descending to the cellar—the coolest part of the building—we find the simple apparatus used in the process of enfleurage. The apparatus is of two kinds. The smaller is a frame fitted with a sheet of stout glass. A number of these, all of the same size, when placed one on the top of the other, form a tolerably air-tight box. The larger is a frame fitted with wire netting, over which a piece of molleton is placed. The other rooms are used for bottling, labelling, &c.

The following are some of the details of the cultivation and extraction of perfumes as given in Mr. Warrick's paper:—

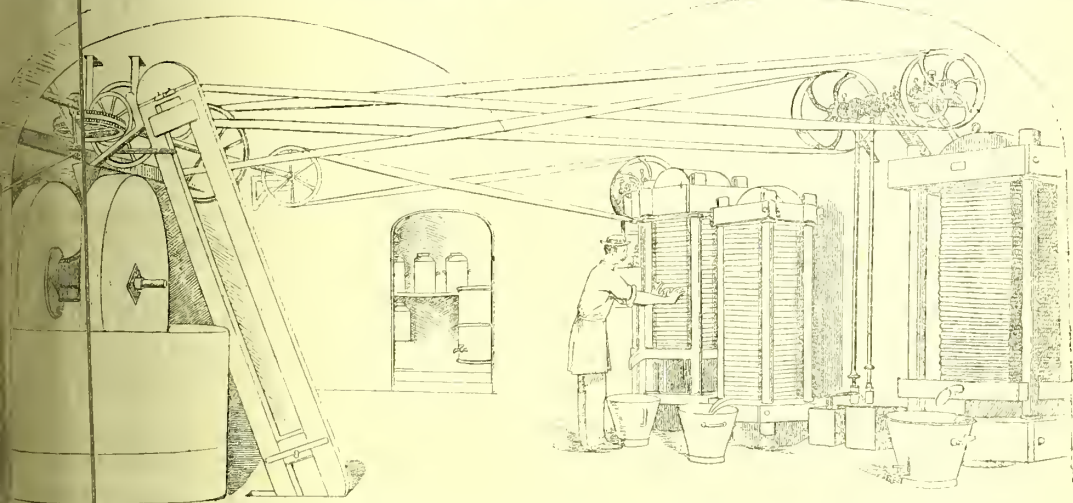


ORANGE PERFUMES.

Orange perfume is produced from the pip, which is sown in a sheltered covered bed. When the young plant is about an inch high it is transplanted, and allowed a year to gain strength in its new surroundings. It is then grafted with a scion from the Portugal or Bigaradier. It requires much care in the first few years, must be well manured, and during summer well watered, and if at all exposed must have its roots covered up with straw in winter. It is not expected to bear a crop of flowers before the fourth year after transplantation. The flowering begins towards the end of April and lasts through May to the middle of June. The buds are picked when on the point of opening by women, boys, and

derful productions, the flowers, the leaves, and the fruits of the orange-tree, at the factory, man has to do the rest. He does it in the following manner:—

The flowers are spread out on the stone floor of the receiving-room in a layer some 6 to 8 inches deep; they are taken in hand by young girls, who separate the sepals, which are discarded. Such of the petals as are destined for the production of orange-flower water and neroli are put into a still through a large canvas shoot, and are covered with water, which is measured by the filling of reservoirs on the same floor. The manhole of the still is then closed, and the contents are brought to boiling point by the passage of superheated steam through the coils of a surrounding worm. The water and oil pass over, are condensed, and fall into a



Left mill for crushing almonds and pressing olives. The arrangement on the right of the mill is an Archimedeian screw covered in, by which the seeds are delivered to the mill. On the right hydraulic presses for pressing residual fat or oil from flowers.

to make use of a tripod ladder to reach them. These men carry the fruits (or, rather, flowers) of their day's work to a flower agent or commissionaire, who weighs them, and then puts them out in a cool place (the flowers, not the villa- here they remain until 1 or 2 A.M.; he then puts them into sacks, and delivers them at the factory before the sun has risen. They are here taken in hand at once; on some days as many as 160 tons being so treated in the province. After the following season, say end of the year, the farmers prune their trees; these prunings are taken to the factory, where the leaves are separated and used for oil.

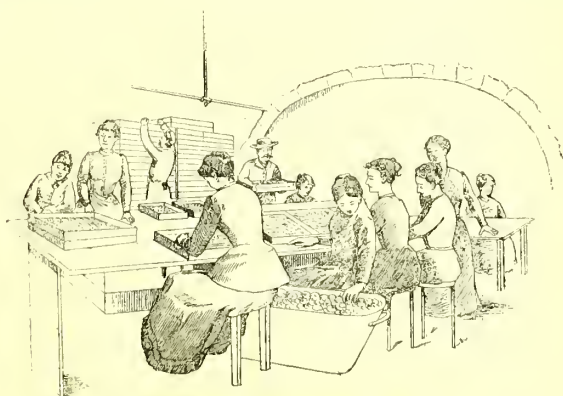
florentine receiver, where the oil floating on the surface remains in the flask, while the water escapes through the tube opening below. A piece of wood or cork is placed in the receiver to break up the steam flowing from the still; this gives time for the small globules of oil to cohere, while it breaks the force of the downward current, thus preventing any of the oil being carried away.

The first portions of the water coming from the still are put into large tinned copper vats, capable of holding some 500 gallons, and there stored, to be drawn off as occasion



PROCESS OF MACERATION.

In the autumn the ground round about the trees is tilled, dug up, and manured. The old practice of cutting the orange trees is being abandoned. In the year 1880 blossoms which escaped extermination developed into fruits. These, when destined for perfume, are picked while green. Orange trees produce a second crop of flowers in the autumn, of sufficient importance to allow of their being taken to the factories, and always of sufficient importance to provide with the necessary bouquets. The workers have thus assisted to deliver these her won-



PROCESS OF ENFLEURAGE.

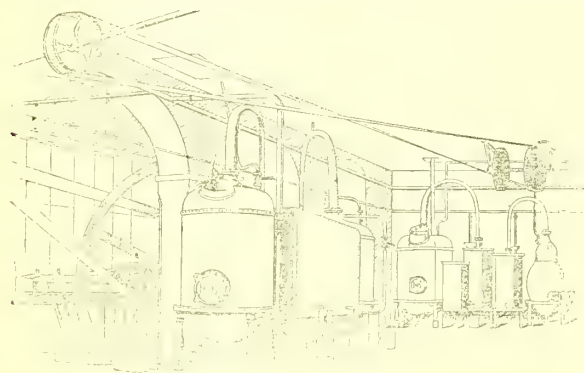
may require into glass carboys or tinned copper bottles. This water is an article of very large consumption in France; our English cooks have no idea to what an extent it is used by the chefs in the land of the "darned mounseer."

The oil is separated by means of a pipette, filtered, and bottled off. It forms the oil of neroli of commerce; 1,000 kilos. of the flowers yield 1 kilo. of oil. That obtained from the flowers of the Bigaradier, or bitter orange, is the finer and more expensive quality.

The delicate scent of orange-flowers can be preserved quite unchanged by another and more gentle process—viz., that of maceration. It was noticed by some individual, whose name has not been handed down to us, that bodies of the nature of fat and oil are absorbers of the odour-imparting particles exhaled by plants. This property was seized upon by some other genius equally unknown to fame, who utilised it to transfer the odour of flowers to alcohol.

Where oil is used it is the very finest olive, produced by the trees in the neighbourhood. This is put into copper vats holding about 50 gallons; 1 cwt. of flowers is added. After some hours the flowers are strained out by means of a large tin sieve. The oil is treated with another hundredweight of flowers, and still another, until sufficiently impregnated. It is then filtered through paper until it becomes quite bright; lastly it is put into tins, and is ready for exportation or for use in the production of extracts.

Where fat is employed as the macerating agent, the fat used is a properly adjusted mixture of lard and suet, both of

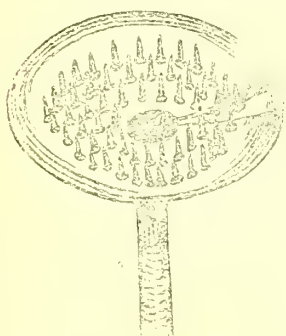


STEAM-HEATED STILL.

which have been purified and refined during the winter months, and kept stored away in well-closed tins.

One cwt. of the fat is melted in a steam-jacketed pan, and poured into a tinned copper vat capable of holding from 5 to 6 cwt. About 1 cwt. of orange-flowers being added, these are well stirred in with a wooden spatula. After standing for a few hours, which time is not sufficient for solidification to take place, the contents are poured into shallow pans and heated to 60° C. The mixture thus rendered more fluid is poured on to a tin sieve; the fat passes through, the flowers remain behind. These naturally retain a large amount of macerating liquor. To save this they are packed into strong canvas bags and subjected to pressure between the plates of a powerful hydraulic press. The fat squeezed out is accompanied by the moisture of the flowers, from which it is separated by skimming. Being returned to the original vat, our macerating medium receives another complement of flowers to rob of their scent, and yet others, until the strength of the pomade desired is reached. The fat is then remelted, decanted, and poured into tins or glass jars.

To make the extract the pomade is beaten up with alcohol



THE ECUEILLE.

only for the oil of petit-grain. This name was given to the oil because it was formerly obtained from miniature orange

fruits. From 1,000 kilos. of leaves 2 kilos of oil are obtained.

The oil obtained from the fruit of the orange like that of the lemon, is extracted at Grasse by rolling the orange on the pricks of an *ecueille*, an instrument with a hollow handle into which the oil flows. The oil is sometimes taken up on a sponge. Where the oil is produced in large quantities, as at Messina, more elaborate apparatus is employed. A fragrant oil is obtained by distilling the raspberries of the

THE EUCALYPTUS, MYRTLE, &c.

Of later introduction than the trees of the same family, the *Eucalyptus Globulus*, which, not being so common with the former in the variety of nasal affections it gives rise to, probably consoles itself with coming off the tincture victor in the department of power and penetration. The leaves and twigs of this tree are distilled for oil. This oil is in large demand on the Continent, the fact of there being no other species than the globulus in the neighbourhood being a guarantee of the uniformity of the product.

Whereas the eucalyptus is but a new-comer, these regions have another member of the same family, the common myrtle, which dates its introduction many centuries back. Its oil is distilled from its leaves, and also a water.

Associated with the myrtle we find the leaves of the bay-laurel, forming the victorious wreaths of the ancients. The oil produced is the oil of bay-laurel, oil of sweet bay. It must not be confounded with the oil of bay of the Indies, the produce of the *Myrcia acris*; it yet with the oil of cherry-laurel, a member of yet another family, the leaves of which are sometimes substituted for those of the sweet bay. The leaves of this plant yield the cherry-laurel water of B.P. It can hardly be said to be an article of perfume, but also yields an oil.

Another water known to the British Pharmacopoeia is the water of elder, produced from the flowers of the elder, which grows about Grasse.

The rue also grows wild in these parts, and is distilled

THE LABIATES.

The family which overshadows all others in the quantity of essential oils which it puts at the disposal of the Grasse distillers and their neighbours is that of the Labiatae. For among these we have the lavender, spike, rose, and many. These are all of a vigorous and healthy nature, and require no cultivation.

The tops of these plants are generally distilled under contract with the Grasse manufacturer, the village in the immediate vicinity. The higher the altitude at which these grow, the more esteemed the oil. The finest lavender is produced by distilling the flowers only. 100 tons of lavender, 25 of spike, 40 of rose, and 10 of rosemary are sent out from Grasse every year.

Among the less abundant labiates of the parts are melissa, which yields, however, a very fragrant oil.

In the same family we have the sage at the same time, common basil, also giving up their essential oils on distillation.

THE UMBELLIFERS.

Whereas the flowers of the labiate family are treated by the distillers as favourites are by the gods, and are cut in their youth, those of the Umbelliferae are allowed to develop and develop into the oil-yielding fruits. It is the fennel and parsley, grow wild round about the town, are laid under contribution by the manufacturers.

The Compositae are represented by the tarragon (*Estragon*).

THE GERANIUM.

Oil of geranium is produced from the rose or oak-leaf geranium, cuttings of which are planted in well-shaded beds in October. During the winter they are covered with straw matting. In April they are taken up, and planted in rows in fields or upon easily irrigated terraces. Of course they require *quantum sufficit*; of Nature's gifts, they cheer and not inebriate—the glorious sunshine does not have too much. They soon grow into bushes 3 or 4 feet high. At Nice they generally flower at the end of April. At Grasse and cooler places they flower at the end of May. The whole flowering plant is put in

THE ROSE.

to the of geranium in odour are the products of e. The de Provence is the variety cultivated. own on ge e slopes facing the south east. Young are taken in a five-year-old tree, and are planted in which has been well broken up to a depth of 3 or 4 rows like nes. When the young plant begins to out the p of it is cut off about a foot from the e. During the first year the farmer picks off the buds pear, in or that the whole attention of the plant taken up i developing its system. In the fourth or ear the tr is in its full yielding condition. The ng begins at mid-April, and lasts through May to ne. On sde days as many as 150 tons of roses are d in the prince of the Alpes Maritimes.

ouds on the int of opening are picked in the early g. Scott sa they are "sweetest washed with morn- w"; the phaser may think otherwise where the s to be paid.

flowering seon over, the trees are allowed to run in January y are pruned, and the branches left are d from tree tree all along the line, and form imble fences.

e-tree will e to a good age, but does not yield ter its seven year. At that period it is dug up and nd corn, potoes, or some other crop is grown on l for twelve onths or more.

a factory th petals are separated from the calyx, distilled wi water for the production of rose-water otto. For e production of the huile and pomade treated by eceration. They are finished off, how-

the proces of enfleurage, in which the frames luded to arcade use of. The fat, or pomade, is n to the glacon both sides. The blossoms are then trewn on to e upper surface. A number of trays are placed c on the top of the other to a con-

neight, form; a tolerably air-tight box. The next old flowers e removed, and fresh ones are sub- or them. Is is repeated until the fat is sufficiently ed. From e to time the surface of the absorbent

ed by serrang it with a comb-like instrument. ouse, is necessary in order to give the hungry non-

lower layer, chance of doing their duty. oil is the alrbent, the wired frames are used in n with cloth. The cloth acts as the holder of the

be flowers e spread upon it, and the process is l in the sam way as with the frames with glass.

he pomade e, extrait de rose is made in the same e orange extit.

CASSIE.

onger, though less delicate, cassie is grown from ch are coned in pods which betray the con- this plant w the leguminous family. After being water they e sown in a warm and well-sheltered en two feet, igh the young plant is grafted and ed to the op ground—ground well exposed to the eltered from he cold winds. It flourishes best in bourhood of rrasse and Cannes. The season of s from Octo to January or February, according ence or abse e of frost. The flowers are gathered reek in the daytime, and are brought to the a the evening. They are here subjected to mace-

JONQUIL.

of humbler owth is the jonquil. The bulbs of out in rows. The flowers put in an appearance t of Marc four or five on each stem. Each t blooms is cked off at the calyx. They are maceration al enfleurage, chiefly the latter. The period of th jonquil is of very short duration, a takes two t, sons for the perfumer to finish off les of extra, trength. The crop is also very

JASMIN.

eliable crop i hat of the jasmin. This plant is e cuttings of e wild jasmin, which are put into enches between. Level ground is available, this is formed into a

series of terraces. When strong enough the young stem is grafted with shoots of the *Jasminum grandiflorum*. The first year it is allowed to run wild, the second it is trained by means of rods, canes, and other appliances. At the approach of winter the plants are banked up with earth to half their height. The exposed parts then die off. When the last frost of winter is gone the earth is removed, and what remains of the shrub is trimmed and tidied up for the coming season. It grows to four or five feet. Support is given by means of horizontal and upright poles, which join the plants of one row into a hedge-like structure. Water is provided by means of the ditches already mentioned. When not used for this purpose the trenches allow of the passage of women and children to gather the flowers. These begin to appear in sufficient quantity to repay collecting about the middle of July. The jasmin is collected as soon as possible after it blooms. This occurs in the evening, and up to about August 15 early enough for the blossoms to be gathered the same day. They are delivered at the factories at once, where they are put on to the chassis immediately; the work on them continuing very often till long after midnight. Later on in the year they are gathered in the early morning directly the dew is off. The farmer is up betimes, and as soon as he sees the blossoms are dry he sounds a bugle (made from a sea shell) to announce the fact to those engaged to pick for him.

TUBEROSE.

The tuberose is planted in rows in a similar way to the jasmin. The stems thrown up by the bulbs bear ten or twelve flowers. Each flower as it blooms is picked off. The harvesting for the factories takes place from about the first week in July to the middle of October; there is an abundant yield, indeed, after this, but it is only of service to the florist, the valued scent not being present in sufficient quantity. The flowers are worked up at the factory directly they arrive by the enfleurage process.

MIGNONETTE.

The *riséda*, or mignonette, is planted from seed, as here in England. The flowering tops are used to produce the huile or pomade.

VIOLETS.

Last in order and least in size comes the violet; for "the flower of sweetest smell is shy and lowly," and has taken a modest place in the paper.

Violets are planted out in October or April. October is preferred, as it is the rainy season; nor are the young plants then exposed to the heat of the sun or to the drought, as they would be if starting life in April.

The best place for them is in olive or orange groves, where they are protected from the too powerful rays of the sun in summer and from the extreme cold in winter. Specks of violet appear during November; by December the green is quite overshadowed, and the whole plantation appears of one glorious hue. For the leaves, having developed sufficiently for the maintenance of the plant, rest on their oars, and seem to take a silent pleasure in seeing the young buds they have protected shoot past them and blossom in the open.

The flowers are picked twice a week; they lose both colour and flavour if they are allowed to remain too long upon the plant. They are gathered in the morning, and delivered at the factories by the commissionaires or agents in the afternoon, when they are taken in hand at once.

The products yielded by this flower are prized before all others in the realms of perfumery, and cannot be improved; for, as one great authority on all matters has said: "To throw a perfume on the violet . . . were wasteful and ridiculous excess."

THE STUDY OF PERFUMES.

Mr. Warrick then concluded his paper in the following words:—"I have endeavoured, I fear very unsuccessfully, to place before you a picture of the flowery land of Grasse, and of the methods adopted by the Grassois to enable us less favoured Northerners to participate in the benefits accorded them by nature. But to do real justice to the philanthropic exertions of the villagers and manufacturers one requires to have spent a holiday among them; then will their jasmin not remind him only of pomade, nor their rose-

water only of cold-cream. For it is all a matter of association.

To many of us who look back with pleasure upon our student days even H_2S has its charms, and it is just possible that new standards of sweetness and foulness are being evolved in our rapidly advancing species, now that the essences of things are being dissociated from the things themselves. Bad odours, say the hygienists, are not necessarily bad in themselves, but are to be avoided on account of the bad company they keep. But, thanks to this scientific age, bad company is not confined to bad odours; the pharmacist knows how to combine arsenic with lavender and lime with rose; and we do not need to name our authority when we say that things are not what they seem.

Thus the natural functions of the nose become of no avail. Our most prominent organ has to take a back seat—truly, indeed, this is a case of the first becoming the last. The day may not be far distant when its only function will be to carry our second eyes, but for this it might die out from disuse, and thus end the industry of Grasse. Before that day arrives, however, I fear it will have fallen a victim to a deadlier foe. The test-tube wielding tribe are waxing strong, and have slain many a homely industry. Would that each recruit to that army could look back upon a holiday spent at Grasse; then, maybe, when able to deal the blow he would forbear, and have some pity, some compassion, on the place.

If the chemist, like the schoolmaster, is abroad in the present day, I hope that, as far as perfumes are concerned, he will remain there.

The other day at St. Andrews Mr. Balfour entered a vigorous protest against the systematic study of English literature. "Why should we brush off the bloom and freshness," said he, "from the works to which Englishmen and Scotchmen most naturally turn for refreshment?" I fear any protest on my part against the systematic study of odours, and against the brushing off of the bloom and freshness of scents culled from nature's laboratory, by distilling them from blossoms yet to form on the many-branched coal-tar tree, would avail little, and might be regarded as an interested protest. Still let us hide their base origin, if such arise, for we must remember that when it was written that a rose by any other name would smell as sweet chemical nomenclature had not been invented. Imagine a young lady asking for some "essence of the methyl-ether of proto-catechuic aldehyde—not too much of the methyl, please"; or complaining of the ethyl or other radicle not being linked to her favourite carbon in the chain.

Gentlemen, I fear I have had nothing to tell you you did not already know; for you are so fortunate as to have had a training forced upon you which makes you familiar with all the products you handle. There are some who think such training unnecessary. I am not one of those. I hold it nobler to court battle with the difficulties that arise in the path of an advancing civilisation, and to develop new resources and new faculties to meet these, rather than to rely, like the oyster, on a thick shield of ignorance; for while it is true this preserves the life within from many a death-dealing blow, it at the same time shuts out all knowledge of the infinite beauties of this world. And Mr. Goschen has recently encouraged us to consider the cultivation of an intimate acquaintance with and a love of one's business as no mean thing; but in a more lasting, stirring form has Schiller embodied the same message in that grand production of his—"The Song of the Bell." Perhaps here we see where the seed was laid which has borne such fruit in the shape of Germany's able business men. For poets point the way which nations follow. To put Schiller's words into English—

To him who views his work aright,
An earnest word comes not amiss;
A task, indeed, is a delight
When happy words accompany it.

So let us well consider this,
What feeble forces can create;
That wretched man, indeed, despised should be,
Who ne'er thinks o'er what he doth make.

'Tis that, indeed, which makes the man,
And, therefore, reason is his part;
That of his work the gist and plan
Should stir him in his inmost heart.

Trade Notes.

MESSRS. THOMAS, WAKEHAM & Co., of 36 Leader Street, are introducing the "Tiger" brand of chloro (Dr. Henry's), a special feature of which is that it is put in stoppered bottles.

MESSRS. LOW, SON & HAYDON, wholesale perfumers, removing on February 19 from the premises, 330 St. which they have occupied for over three-quarters of a century, to new premises, at 81 Great Queen Street, Lincolns Inn Fields.

We have received a sample of the extra of herbs by Mr. B. Adams, of Mansfield. The extra is for medicinal herb or botanic beer, and is possessed of a great deal of colour, together with an exceptionally good flavour. The extract is neatly put up to retail at popular prices.

MR. B. KÜHN, of 36 St. Mary-at-Hill, the agent in this country for the Papain Finkler, is now supplying medicine in small flat bottles containing 250, or 100, of either 1 or 2 grains each. The pills are as well as they can be, are gelatine coated, and the bottle easily be carried in the waistcoat pocket.

MESSRS. BURROUGHS, WELLCOME & Co. are now supplying "toilet lanoline," a delicately perfumed article, in collapsible metal tubes, six of which are attached to a card, and the whole fixed in a cardboard box, from which the card may be removed if desired. The tubes are for retail sale at sixpence.

MR. PETER TYRER has produced a most effective card to advertise his Royal Café sauce. The card represents the lion and the unicorn supporting a bottle of the sauce, which is, we may add, well worthy of such support. It is admirably manufactured and stylishly turned-out sixpence.

It will be observed from a special note made in a recent issue by Messrs. G. & G. Stern that they call attention to the fact that impure terebinthinate oils are being offered for sale. The oil of pini pumilionis, which has acquired considerable notoriety lately as a therapeutic agent. Disappointment, however, can only follow the use of these inferior articles.

"FLORADOR" is the registered title of a new food manufactured by the Florador Food Company, of 7 South Street, London, and Glasgow. Its peculiarity is that it is manufactured from wheat, and is produced in granular form, like sago and semolina, three grades, large, medium, and small, being supplied. It can be used for all such purposes as sago, cornflour, &c., and has the advantage of containing no fat, and is merely carbonaceous, and is adapted for use in soups.

SOLUBLE SACCHARIN IN SCREW-CAP BOTTLES is among the latest novelties for chemists which are now placed on the market by Messrs. Burroughs, Wellcome & Co. The bottles are of a size and shape which is well suited to be carried in the waistcoat pocket, and holding just enough to sweeten a cup of tea. The stopper is soldered to the inside of the stopper. The price is 2s. each, and should find a good sale of these novelties.

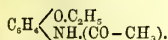
THE COLONY OF VICTORIA imported 1886 10, worth of drugs and chemicals: 41,651*l.* opium, 64,611*l.* and colours, 668,472*l.* tea, 219,691*l.* oil, all kinds, 30,035*l.* oilmen's stores. The exports included: Tea, 322,500*l.* soap, 13,745*l.*; tallow, 120,900*l.*; oils, 28,500*l.*

In a paper on "Terebinthines" in the *Lancet* of March 10, Dr. Prosser James, speaking of the use of "oil of turpentine" as an inhalation in catarrhal affections, says, "The oil of turpentine is much milder than vapor of oil of sassafras, and is a very excellent addition to other inhalations, such as creosote, which it disguises." Dr. George H. R. in a recent report on "pumiline," states that it does not give rise to any kidney irritation.

Notes of Nobelties.

PHENETIN, OR ACETPHENETIDIN.

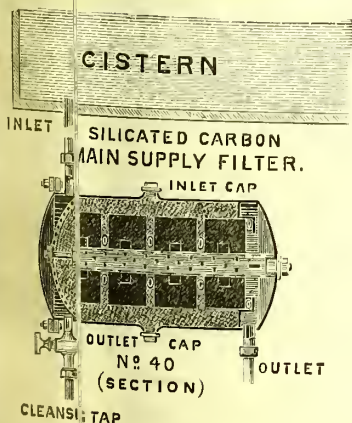
SRS. MAY & BAKER have, we understand, come to an agreement with the German patentees of phenacetin, whereby they become the sole consignees for the United Kingdom of the colonies. Phenacetin, it will be remembered, is an ethyl compound of phenetidin—in other words, an ethylic ester of paratolphenol, and is represented by the formula:—



in the form of inodorous and tasteless crystals, feebly soluble in water, little more soluble in glycerine, but easily soluble in hot alcohol, and insoluble in acids or alkalis. As antipyretic phenacetin has been found to act with marked purity in lowering the temperature, its action being specially noteworthy in acute bronchial and pulmonary affections accompanied by high fever; even in cases of measles neuralgia it does excellent service, and it is noticeable that shivering does not follow the exhibition of large doses. Hitherto the more important of recorded results from the use of phenacetin have been obtained from experiments in German hospitals, and these, we understand, are being tested and the inquiry extended by several of the notable therapeutists in this country, with so far admirable results, while they find that the drug does not produce the undesirable secondary effects which follow the administration of the other modern antipyretics.

MAIN SUPPLY FILTER.

subjoin an engraving of an improved main-supply filter, by the Silicated Carbon Filter Company, Battersea, by which it will be seen that various alterations have been introduced in the method of fitting the interior of the filter, and which the company claim to have not only improved the result but to have increased the efficiency of the filter. In the improved pattern the filter-case, of copper carefully lined throughout, is provided with an earthenware lining, so

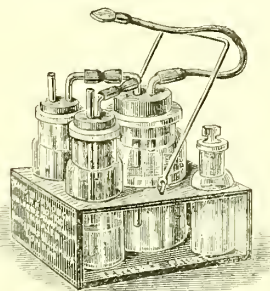


the filtered water never comes into contact with the filter. The blocks are arranged so as to secure the largest possible area of filtration, and are fitted upon a perforated metal plate, and are then surrounded with granular silicated carbon, a material which possesses remarkable absorbent qualities. A perforated drain keeps the whole in position, and at the same time arrests the grosser impurities, while a cleansing tap is provided, by opening which the filter is effectively cleansed. The addition of an inlet and outlet cap will

be at once appreciated, as by means of the latter the granular silicated carbon can be removed when desirable to cleanse it, and by means of the former it can be replaced in the filter without in any way disturbing the fixing.

THE BURROUGHS CHLORIDE OF AMMONIUM INHALER.

SOME noteworthy improvements have recently been made in this appliance which have gone far towards perfecting a combination which is one of high therapeutic merit. The tray carrying the glass bottles is now made of metal instead of wood, and the several bottles are all fitted with india-rubber stoppers. Some chemists, we are told, have found it profitable to hire out these inhalers at the rate of about



1s. a week, and many would assuredly find that one placed on a counter and properly explained by means of a card would be an attractive addition to the shop. Inhalations from this apparatus carry to the throat and air-passages an almost nascent form of chloride of ammonium in a perfectly neutral condition. This vapour is probably of great value in the treatment of bronchial or pulmonary complaints, and it is certainly of no small service in strengthening and improving the voice. It is in this latter capacity that we suggest impromptu inhalations being offered to customers. The apparatus is so constructed that perfect neutrality can be readily obtained by alterations of the tubes in the hydrochloric acid or in the ammonia bottle respectively; and other remedies, such as pinol, eucalyptus oil, &c., can be combined with the chloride of ammonium by adding these to the water in the washing vessel.

Personalities.

MR. F. CODD, chemist and druggist, has been elected one of the auditors for the borough of Devonport.

WE regret to state that Sir Henry Acland, late President of the Medical Council, who has for some time past been suffering from serious impairment of vision and pain in the left eye, has been compelled to have the eye removed, owing to an attack of hæmorrhagic glaucoma, which the affection developed into.

MR. ROBERT LOW, manager of the Royal Laboratory, Woolwich, has resigned his position. Mr. Low was severely injured at the Shoeburyness explosion in February, 1885, and might have retired on a liberal pension and compassionate allowance, but he will receive neither reward nor superannuation on resigning, and forfeits all his thirty years' service. His reason for taking the step is dissatisfaction at the refusal of the War Office authorities to increase his salary from 450l. to 500l. a year, the amount which is paid to the managers of other departments, the decision being accompanied by an acknowledgment of his long and valuable services, and an intimation that in course of time his remuneration would probably be augmented. A well-known firm of iron and steel makers has, it is said, engaged him as superintendent of works on a standing agreement at a salary treble the amount which he was paid by Government.

TRADE "SANITAS" MARK.

DISINFECTANTS

(FLUIDS, POWDER, SOAPS),
NON-POISONOUS, PLEASANT, AND BEST.

Used by more than 1,000 Boards of Health and Hospitals.

Gold Medals, Calcutta 1883-84, Paris 1885, Antwerp 1886.

THE "SANITAS" COMPANY, LIMITED,
Letchford's Buildings, Bethnal Green, London.




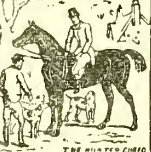


'SECURUS JUDICATOR OBIS TERRARUM'

Apollinaris
"THE QUEEN OF TABLE WATERS."

The filling at the Apollinaris Spring during
the year 1887 amounted to

11,894,000 Bottles.

SHOW CARDS, 24×17 or 17×12,

	ELLIMAN'S		
FOR HORSES AND CATTLE	 		SOLD EVERYWHERE
MANUFACTURED BY SLOUGH ENGLAND	In Bottles 2/6 & 3/6 EACH		
	EMBROCATION		

Free to any Address.

SLACK & BROWNLOW'S
CANNING WORKS
MANCHESTER. **FILTERS**

DR. RICHTER'S PAIN EXPELLER

1/1½ and 2/9, is regularly stocked by the Wholesale Houses.

USUAL TRADE TERMS.

DEPOT FOR THE UNITED KINGDOM:

DR. RICHTER & CO., 1 Railway Place, Fenchurch St., London, E.C.

MEDALS LONDON 1873 PARIS 1875
MUMFORD'S
PURE CRUSHED LINSEED

17/- per cwt., bag included, 18/- in 28 and 56 lb., 20/- in 7 and 14 lb. parcels
1 lb. tins, 5/- per doz. Best Quality. No Oil Extracted. Carefully
Cleaned and Ground, so as to retain the natural colour of the seed without being
heated, G. S. MUMFORD, FARRINGTON ROAD, LONDON.

A. W. Carter & Co.
Soluble Essences for Mineral Waters
Old Refinery Bristol

Woodhall Spa

STRONGEST BROMO-IODINE MINERAL WATER

Especially recommended by the Medical Profession

For RHEUMATISM, GOUT, and SCALD, CH
Skin Diseases, Scrofula, Rickets, and some diseases pec
to Women.

The Woodhall Bromo-Iodine Water is now being bottled at the
and can be obtained from any Chemist, or on application direct
Spa, Woodhall, Lincoln.

Woodhall Spa



VENTILATING LAMP.
CLASS. H.

A NEW LAMP OR CHEN
AND DRUGGIST SHOPS
the naked light entirely
tested. The Wenham Patent
Lamp, which has recently
such a revolution in gas light
has now been adapted for
inside and outside shop light
&c., and any a desirable
perfection of light together
enormous economy in gas, sh
apply, stating requirements
the WENHAM CO. (limited),
Ogle Street, Loon, W.,
will immediately forward
Illustrated Lists Many let
London Houses he adopted
system.

SEE SEABURY & JOHNSON'S ADVERTISEMENT
ABSORBENT COTTON LINT AND GAUZE on page 121.

PUMILINE.—G. & G. STERN

Call special attention to their Advertisement
and Special Request on pages 72, 73, bottom
folio, of this Issue.

EDITORIAL NOTES.

THE PHARMACY ACTS AMENDMENT BILL.

THE Pharmacy Acts Amendment Bill has practically passed
through the House of Lords, and will soon be ready to
on its more perilous passage through the Lower Chamber.
The sudden flicker of interest which it created among
peers last week when Lord Milltown added the branch
clause to it seems to have died out as suddenly as it
forth, and the legal learning and noble wisdom which
were led to anticipate from our lofty legislators on the re

coming. The new clause as it now been subjected to some verbal alterations, but it is still unsatisfactory in the reference to "branch shops." What is a branch shop? We all know that a chemist has more businesses of which it would be difficult to distinguish the branches from the original. By the 5th clause, as reported by us, it will be intended that this "branch shop" clause will have effect, if the Bill should pass this Session, from January 1889. It will also be observed that in the preamble of the Bill the phrase has been omitted. The Bill has converted a document of value or interest into one which really concerns the trade. Those who conduct more shops than of direct importance, and to the rest the principle is worthy of careful scrutiny. The House of Lords, on its own instance, declared for the principle of per-sonification of the part of every one to whom the duty of a pharmacy is entrusted. No one can say that the proposal is unreasonable or revolutionary. It was most likely intended by the Legislature when the Act of 1868 was passed; but the intentions of that Act, as we know, have only served as paving-stones for the position in which we now find ourselves. The law as it present stands is strong enough if it is intended to prevent an unqualified person selling in a new clause will prevent such an one from being a chemist and druggist in a chemist's and shop.

The House of Lords has quite rightly decided in favour of the public, and we are sorry that the Pharmaceutical Council should have shown so little resolution in supporting the clause. It was some distance from them, perhaps, to find that the co-ordinate legislation was not, as they had fondly imagined, the work of the Commons and Mr. Carteighe; and those of us who have imbibed the notion that a curriculum is the work of the Pharmaceutical Council, that pharmacy needs may reasonably be expected to have some reflection will be surprised to find that the principle now laid down by the Act really reflects in the points where it has been most defective. The new clause applies only to chemists in an open shop. Lord Milltown would be surprised to learn that by simply availing themselves of any seven unqualified persons in a shop and all themselves chemists and druggists, that this is usually done within range of the Act of 1868. Lord Bramwell can explain to his satisfaction the performance is managed. By some modification of Lord Milltown's clause this can surely be done from the first of January, 1889, and we are quite sure that such an amendment, if made in the House of Lords, would be readily agreed to by the House of Lords.

CURRICULUM AND THE SCHOOLS.

Remarkable solution of prospective conduct of the Pharmaceutical Council put on record last week in the schools of instruction throughout the country. It is that:—

intention of the Council that the courses of any school when conducted in accordance with the conditions to be laid down from time to time by the Council of the Pharmaceutical Society, and the Privy Council under the provisions of the

proposed Bill—shall be recognised as qualifying courses of instruction under the said rules and conditions."

This may mean anything or nothing. It is no secret that one of the House of Commons legislators, who strongly opposed the Pharmacy Bill last session, held a brief from one of the principal metropolitan schools of pharmacy, the reason for the opposition being that the Bill gave the Pharmaceutical Society the power to refuse recognition of any school of whose teaching they might for any reason disapprove. The same condition of things holds good in regard to the present Bill, and we understand that last session's opposition from the old quarter will be maintained; hence the disposition of the Council to avert the opposition. It has been found necessary in officially reporting the proceedings of last week's meeting to publish simultaneously an explanation of the resolution in question. How far this explanation may be considered authoritative no one can tell; but it is well to let it be known as widely as possible that the "egoistic and altruistic" scribe "understands that it is contemplated to make a provision that in the case of any school desiring to be recognised as providing qualifying courses of instruction, and failing to meet with the approval of the Council, there shall be a right of appeal to the Privy Council for decision of the point at issue." This side light is far more important than the Council's own resolution, and we may well ask why this important declaration was not made by the Council itself? There has existed in the various schools of pharmacy some uncertainty as to how the Pharmaceutical Society would treat them in the event of their applying for recognition. It is not so long ago that the partisans of the Society declared that one result of a compulsory curriculum would be the extinction of one or more metropolitan schools whose success has been obnoxious to them. These declarations have been little heard of lately, but, knowing that they existed and that the persons who uttered them retain some control of the Society's affairs, right of appeal to the Privy Council becomes a very necessary thing. We might go so far as to urge that existing schools of pharmacy should be recognised as a matter of course, provided their curricula are brought into conformity with the curriculum which may afterwards be formulated; indeed, the authorities cannot in justice adopt any other course. This, however, applies only to a few institutions which are professedly pharmaceutical schools. Apart from them, there are many centres of learning available to provincial students—evening and tutorial classes conducted by pharmacists, and evening science classes—whose claims will have to be considered. The subjects of the curriculum, so far as they have been foreshadowed (see THE CHEMIST AND DRUGGIST, April 23, 1887, page 502), are chemistry (theoretical and practical), botany, and materia medica. With the exception of materia medica, these subjects are taught in the colleges and universities throughout the country on as elaborate and efficient a scale as the most ardent pharmaceutical educationalist could wish. For the benefit of those who can attend such courses of instruction there should, and no doubt will, be recognised such colleges as Mason's in Birmingham; and universities, as Edinburgh, which would come under this category. It may be that the courses of instruction are not identical in certain details with what the Pharmaceutical Council may contemplate; but the similarity between them and the courses of instruction in, for example, the School of Pharmacy, is sufficiently close to warrant the recognition of the universities and colleges. It would also be highly desirable to make some recognition of the science classes conducted under the South Kensington scheme; but there are several obstacles in this case, the most noteworthy of which is the fact that the chemistry

taught in these classes does not include the preliminary lectures on the physical laws which come into pharmaceutical chemistry. It may also be said that these courses of instruction comprise about thirty lectures. The pharmaceutical student would require two courses (elementary and advanced) to cover the extent of inorganic chemistry contemplated by the curriculum; but there remain the requirements in physical science and organic chemistry, for which three courses at the least would have to be taken out. This method of instruction is exceedingly disjointed, often entailing different teachers for each subject, and being spread over two or more winter sessions. The value of these science classes we do not wish to underrate; they are capable of giving, and have given, sound scientific education, but their courses of instruction are as unalterable as the provisions of the curriculum are to be, so that hope of agreement between them is very slender. Local schools of pharmacy which are conducted under the auspices of pharmaceutical associations will be placed more favourably than the science classes, and will be able to teach all the subjects of the curriculum, spreading the lectures over a whole year, or two winter sessions and one summer session, the latter being devoted to botany. There are only a few of such schools throughout the country, and they are all fairly equipped; but we question if evening classes will meet the requirements of the altered condition of things. The purpose of the curriculum is to take the student entirely away from his shop duties during the period in which he is to undergo collegiate training. This, in practice, is the most satisfactory course for the student; and as those who will have to undergo the curriculum, assuming that it will be legalised, will be persons who have calculated the expense of the training before entering the business, it is obvious that evening classes will only be used for preparatory purposes, and that courses of instruction in thoroughly equipped schools will be taken by students generally.

ISINGLASS AND GELATINE.

THE action brought a few days since against a London firm by a rival house alleging as an offence under the Merchandise Marks Act the sale of an article which seemed to be gelatine under the title of "patent refined isinglass," did not commend itself to the legal judgment of the Lord Mayor of London. We have heard a great deal about the stringency of this new Act, and stringent enough in all conscience it appears to be, when it has to be applied to interference with our export and import trade. Its meshes appear to be constructed with infinite care when the object of straining out the German gnat is in view; but if Mr. Polydore de Keyser has correctly interpreted its provisions, these cannot prevent Mr. Swinborne or any one else from selling as "patent refined isinglass" a substance which can be bought in the wholesale market at considerably less than the price of the ordinary quality of what really is isinglass. We do not say that Mr. Swinborne's "patent refined isinglass" is gelatine. Scientific evidence indicates that it is, and Mr. Poland for the defence seemed to admit the suggestion. But the point is that the Lord Mayor distinctly assumed that the substance complained of was gelatine, and yet he asserts that it is no offence against the Merchandise Marks Act; that, in other words, it is not a "false trade description" to label it and put it before the public as a superior kind of isinglass. The Lord Mayor seems to see some peculiar neutralising influence about the word "patent." Apparently another statute is infringed by the use of this word in connection with a substance the patent for which has expired. How it happens that the inaccurate if not illegal use of an adjective can justify inaccuracy in the

substantive is not appreciable to the refined or ordinary mortals.

Some interesting chemical microscopic and polariscope evidence was laid before the Lord Mayor on behalf of prosecution by Professor Attfield and Dr. Lake. The gentlemen showed that there were certain physical differences between gelatine and isinglass, and that the one under the polariscope corresponded exactly with the description of the other. The following statement made in a letter to this effect, published on January 14, 1888, over the signature of the writer, however, the clearest statement of the differences between the two substances which has yet been published. The writer (who, we may now state, was Mr. J. Suter Dunster House, Mincing Lane) said:—

Isinglass under the microscope shows a distinctly laminated or cellular formation, which is very marked by ground illumination being employed; it polarises well, giving bright, well-defined patches of colour.

Gelatine.—No structure is discernible, the appearance being that of a transparent jelly in which a great number of minute specks are visible (bright by ground illumination). With the polariscope these specks show a distinct circular motion, from which I infer that it is starch in a very small quantity. Gelatine polarises, showing specks of colour, owing apparently to the varying thickness.

For examination I soaked each in cold water overnight, and then pressed between thin glass plates.

In practical use the difference between the two substances is that isinglass will clarify fermented liquors and will not have that effect. It is clear that the construction of the former forms a sort of net which catches down floating particles, and that gelatine, not having this character, cannot perform such work. This shows that it is not right that the one substance should be sold for the other, and we should have expected that the Act would have made such sales illegal.

PATCHOULI OIL AND LEAVES.

IN the March issue of the *Kew Bulletin* a few pages were devoted to information of a botanical and commercial nature regarding *Pogostemon patchouli*, the herb from which patchouli oil of commerce is obtained, and also a note on this compound. Although patchouli was introduced into this country forty-five years ago, much uncertainty still exists as to its origin. The information collected by the Kew authorities is doubly welcome, in so far as it serves to clear up certain points at issue concerning the habitat and varieties of the plant.

The supply of the dried herb as well as the oil is sufficient for the requirements of the trade, and has lately been very uncertain and because the steamers plying between Europe and the East Indies (ports, from which the article is mostly shipped to Singapore), refuse to accept consignments of the dried herb on account of the danger that the powerful odour of the plant might be communicated to other goods stored in the same hold. It is scarcely possible that such communication to other goods should be sufficient to cause the goods placed in the neighbourhood of the shipment to be contaminated. But the fact remains that time there has been a great scarcity, and that a large quantity of the dried leaves are well liked for perfume. Piesse, in fact, states that if the oil could be obtained cheaply, the consumption would increase.

in the Straits Settlements appear to have paid close attention to the propagation of the plant, and the head of the Straits Settlement Forest Department announces that for the year 1886 there has been a steady inquiry for plants, which are easy of cultivation, and require but little attention. August 1886 samples of three different kinds of patchouli were sent home to the Kew authorities, and a request for information concerning their commercial value and employment in Europe. The first two samples consisted of selected leaves and of the entire flowering tops, both of dry, having been the same for both. The third consisted of the leaves of the *Urena lobata*, which are used in the East to adulterate the true patchouli. The *Urena* grows wild to a large extent in the cocoa-nut gardens of the coast, and its leaves are worth, locally, 1½d. to 1¾d. per lb., whereas for the selected patchouli leaves as much as 3s. per lb. is paid in Penang. The object of the Forest Department in sending home specimens of the adulterant was to ascertain whether it contained any valuable ingredients or whether it added to the true herb in order to increase the value. The Kew authorities placed themselves in communication with the subject with a West-end firm of perfumers, a wholesale druggist, and a Mincing Lane importer of oils, but the answers of these three firms do not give every result. The perfumers value the selected leaves at 8½d. to 10½d. per lb., and the flower tops at a 1s. 6d. to 1s. 8d. on account of the worthless stalks, and they state, in regard to the adulterant, that they know it well, as it occurs in the leaves bought by them for perfumery.

The value of patchouli oil they consider to be 3s. per oz. The wholesale drug firm value the leaves at 1s. 6d. per lb., and the flowering tops at 4d. to 6d. per lb. The adulterant, they say, is not known in the East and is quite worthless. Lastly, the Mincing Lane firm estimates the picked leaves at 1s. to 1s. 3d., the tops at 1s. 6d. to 1s. 8d., and the oil, if pure, at 3s. to 3s. 9d. per oz. He values that from 10 to 20 tons of good leaves would sell at a sale in London, while the wholesale druggists, on their hand, advise shippers to be careful in not overvaluing the market, a shipment of, say, 20 tons would cause prices to decline.

Over of these three advisers may be nearest the truth, but certain that patchouli is one of the few articles, at this moment, the demand exceeds the supply, and shipments of good picked leaves could be quickly made in the East, which is the central market, and whence the demand comes from Germany and Southern France, as well as the consumers, and their requirements, the shippers are able to pocket a very good profit. But it is not to be expected that we shall soon receive supplies of patchouli oil from other than the accustomed quarters. In 1886, 5,230 oz. of oil and some 18 cwt. of leaves were imported from Penang, whereas a few years previously the leaves alone in London reached between 600 and 800 cwt. In 1886 a large German firm, with the intention of forwarding a supply of seed to Paraguay, in South America, forwarded a supply of seed to Paraguay, in South America, although the head of the Straits Settlement Forest Department reports that "plants raised from seed are of no scent, and they retain it when produced from the German house seem confident that their efforts are successful. Patchouli-growing is also being tried in the West Indies, and we hear that experiments are being set on foot in Guadeloupe, Martinique, and the West Indian possessions. Some years ago supplies of patchouli leaves of very good appearance, though deficient in aroma, used to be imported into Java, but his source appears to have dried up

lately. A few months ago inquiries were made at Kew by the India Office whether patchouli was known to grow to any extent in Assam and on the Khasia Hills, and whether it could be cultivated in Bengal. To these inquiries reply was given that Professor Oliver, of Kew, thinks it doubtful whether the patchouli plant is indigenous in India at all, a view shared by Mr. Thiselton Dyer, who adds that he thinks it probable that China may prove its true habitat, an opinion contrary to the generally prevailing one, which is that it is the Malay Peninsula. At Kew nothing is known of the existence of any form of *Pogostemon patchouli* in the Khasia or Assam region, but some varieties of the plant in the wild state are found in British India, from Bombay southwards, and a plant with a patchouli odour, believed to be a variety of *Plectranthus*, is thought to be indigenous to Assam. The shipments of very stalky and feebly aromatic root which reach us occasionally from Bombay are perhaps derived from the former species. In connection with this it may be stated that the idea of the patchouli herb being a native of China probably originates from the fact that the block ink imported from that country possesses a distinct odour of patchouli. The introduction of the perfume to the European market is said to be due to the Lyons shawl manufacturers, who, finding that the Indian shawls were always strongly scented with patchouli, imported the oil from the East to scent goods of their own manufacture.

FREE TRADE WITH SIBERIA.

AN OPPORTUNITY FOR BRITISH MANUFACTURERS.

CAPTAIN WIGGINS, commanding the steamship *Phoenix*, from Newcastle-on-Tyne, has recently, after ten previous voyages occupying fully fifteen years, succeeded in finally solving the problem of opening up to European trade by way of the Arctic Ocean, the vast Western half of Asiatic Russia, comprising the regions tapped by the Obi and Yenisei rivers, with their numerous tributaries. On New Year's Day the captain, together with Mr. Sullivan of the "Phoenix Merchant-Adventurers"—a name recalling the famous earlier days of John Company, and the exploits of the seafarers that founded our empire across the seas—left Krasnoiarsk, on the Yenisei river, one of the largest towns of Central Siberia, on his way home to Newcastle-on-Tyne. The steamer *Phoenix* was left behind, frozen up in the Yenisei, to return to England as soon as the ice breaks up sufficiently to allow her a passage. Meanwhile arrangements are said to have been made with the Russian Government by which the Newcastle merchants are permitted to import goods of all kinds free of duty into Siberia for a provisional term of three years, in return for which they will undertake to place upon the English market the produce of Asiatic Russia. Exemption from the extremely heavy Customs dues gives the "Phoenix Adventurers" virtually a monopoly in supplying the wants of the population of Siberia with Western produce and manufactures, as neither Russian-made articles nor goods imported *via* European Russia are likely to be in a position to compete with merchandise brought direct by way of the Siberian rivers. The new trade route which will now, in all probability, be established is, according to Captain Wiggins, perfectly open for navigation during a certain period of the year, provided the steamers employed in the trade are of suitable build, not too heavy, and officered by a captain thoroughly acquainted with all the niceties of navigation in these parts of the Arctic seas. The *Phoenix* reached the Yenisei river, by way of the North Cape, through the Kara Straits, which separate Nova Zembla from the Russian mainland, and thence through the Kara Sea (on the northern coast of which the famous Dutch explorer Barentz wintered from

1596 to 1597, in his ineffectual attempt to find the northern passage to India) to the Gulf of Yeniseisk. The route follows very nearly the same track taken by Nordenskjöld in 1878 when he accomplished the task of circumnavigating the whole of the northern Siberian coast, but it must be borne in mind that Captain Wiggins had commenced his attempts on this route more than five years before Nordenskjöld's final voyage. The *Phoenix* discharged her cargo of European goods near the entrance of the Yenisei river, and from there it was conveyed by the local purchasers (mostly Yeniseisk and Krasnoïarsk merchants), to their respective trading centres. But an immense barge is now being built at Yeniseisk especially for the purpose of carrying up the river the cargo of the next following vessels, the first of which will start from England in time for the coming summer season. The advantages which this new trade will offer are far greater than would appear on the surface, for, as already observed, the goods imported by the new route will be entirely free from import duty, while the obstacles in the way of transport by any other route are sufficient to exclude all other goods from competition. The only railway which at present exists in the Asiatic dominions of Russia runs through the Kirgiz Steppes, many hundred miles south-west of the region opened up by Captain Wiggins. There is, indeed, a gigantic project in existence for building a railway right through Siberia, to be connected at Orenburg with the European system, but the state of the Russian exchequer renders that plan likely to remain a shadowy one for many years to come. Another railway scheme—which is, perhaps, somewhat nearer realisation, though still remote—is that of Mr. Golshuvastoff, who proposes to connect Western Siberia by means of a railroad with the European coast of the Arctic Ocean, so that the passage of the Kara Straits would be avoided. At present there is a regular service of steamers on the Obi and Irtysh rivers in Western Siberia, and if Mr. Wiggins's commercial projects are successful, steam communication is also likely to be started on the Yenisei. As regards the requirements and resources of Siberia, totally erroneous notions seem to prevail in Western Europe. Mr. Sullivan asserts that most European manufactures, even articles of luxury, such as pianos and high-class furniture, will find a good sale in Siberia; and he carries with him photographs of fashionable Siberian drawing-rooms furnished as luxuriously as any in Europe. In the town of Irkutsk, in the heart of Siberia, an excellent telephone system connects a large number of private houses, and there are many other places—such as Yeniseisk, Krasnoïarsk, and Semipalatinsk—which would offer suitable markets for European goods. This being the case, there is every reason to believe that if some of the enterprising firms whose names are found in the advertising pages of this journal were to seize this opportunity of introducing their goods through Captain Wiggins's steamers, they might find in Asiatic Russia an unexpected and remunerative new market. We have it on the authority of a late officer of the British army that a well-known English proprietary medicine was highly appreciated in the neighbourhood of Khiva, and it is, therefore, quite probable that other English medicines, chemicals, soaps, perfumes, and pharmaceutical preparations would be equally welcome in other parts of Asiatic Russia. Among the many products which we would receive from Siberia, hides and skins, wheat, wool, butter, minerals, and forest produce would be the principal ones. The imports of pharmaceutical interest might include Cabardine musk, castor, mercury, antimony, and a variety of vegetable drugs; while in the Siberian forests there must still be hidden a large number of products which only require to be known on our markets in order to find a ready use.

The Production of Cutch. We hear from Rangoon that there is a probability of a serious diminution of cutch in Upper Burma, as indeed there has already been a palpable decline in the exports from Rangoon during the last few years. In 1883 the quantity exported *via* Allonmyo was very nearly 150,000 maunds, the following year it fell to 104,000, and in 1885-86 to only 70,000 maunds. The last named year being the first of the occupation of King Theebaw's dominions, the British trade suffered owing to the unsettled state of the country, but in 1886-87, although the country was probably quieter than it had been during the decline of Theebaw's reign, the trade was a further falling off, and the quantity exported was only 64,000 maunds. The decrease in exports *via* Taungtha from 10,000 to four maunds only need not cause any surprise, since the disturbed state of the Nyngyan and Yemeth districts, which produce the cutch brought to Taungtha sufficiently accounts for the entire collapse of this trade. The Irawaddy district, too, the trade has been decayed. The cause of this decline is to be found in the reckless and wasteful way in which the supply has been dealt with. In the time of king Theebaw forest conservancy was not known, and the lessees of the forests cared nothing for preserving the trees from fire, or of conserving the young timber.

* *

Essential Oil Production in Algeria. The climate of many parts of the French colony of Algeria has been found particularly suitable for the production of essential oils. This industry was originated about thirty-six years ago, when two Frenchmen (M. Mercier and Simonnet), commenced the systematic cultivation of essential oil yielding plants at Cheragas, in the province of Algiers. The industry has now taken firm root, not only among the natives, but also among the colonists, and distilleries are in existence at Algiers, Bona, Philippeville, Mostaganem, Boufarik, and many other places. The trees most cultivated are those of the *citrous* species, which furnish a large variety of essential oils. Next in order among the cultivated plants are geranium, cassia, jasmine, tuberose, and peppermint. Of the wild growing plants, thyme, lavender, rosemary, sage, and marjoram are the most important. Mr. Antoine Chris, of Grasse, owns a large distillery at Boufarik, where orange flowers, peppermint, geranium, and violets are treated. His plantations occupy an area of over 250 acres. The geranium plantations of the entire colony cover over 1,200 acres, and the essential oil distilled from the leaves of the plant is largely employed as an adulterant of otto of rose. The production of this essential oil (mainly obtained in the province of Algiers) averages nearly 220,000 oz. per annum, to obtain which over 11,000,000 lbs. of leaves are said to be required. At the distillery of La Trappe de Staouéli, where some of the best Algerian geranium oil is made, about 35 acres are grown. They yield three crops per annum, producing about 7,000 oz. of essential oil each. The bulk of the Algerian essential oils is shipped to the South of France, and distributed from there to various parts of the world.

* *

Limited Pharmacy. It appears that seven persons combining their united wisdom to run a pharmacy are not all-wise and always—infallible. We have before us a narrative recounting how a farmer residing in the English Channel and the River Tweed sent a limited establishment the other day for 7 lbs. of nitre, and received a parcel duly labelled as such. He wanted it to mix with some sulphur, for horse powders; the wife, seeing an opportunity for a little cheap housekeeping, used it to some on a joint of pork that was cooking for dinner, and to her astonishment it turned black. The porker was thrown away, and the dinnerless farmer took the parcel to the stores for explanation. After several of the limited chemists had examined it, the article was tested by one of the learned pharmacists. It was found to be tartaric acid. It was quickly exchanged for the real "peter," and the farmer is not satisfied, and he assures our correspondent that he will go no more to the stores, as he does not "like" "un-certainity" about drugs.

Pharmaceutical Society of Great Britain.

EVENING MEETING.

MEETING was held on Wednesday evening, Mr. Carteighe, President, in the chair. There was a large attendance, owing to the inclement weather. The first paper read

IDENTIFICATION OF THE CHINESE BARK ATTRIBUTED TO *Pterocarpus Flavus*.

By P. W. Squire.

Bark was first noticed commercially in 1879, when it entered into public sale in London along with other vegetable products from Japan. It is a bark in flat pieces, and of a yellow colour, its botanical source at the time being unknown. The Japanese name for it is "ki-wada." It is used as a dye-wood. In some respects it agrees in physical characters with the Chinese bark known as "hwang-peh," Dr. Port Smith has referred to *Pterocarpus flavus*, which, in turn, resembles the bark of *Ecodia glauca*. The author fully described these barks, and gave a résumé of literature of the subject, then proceeded to state the results of the investigation which was to clear up the doubt as to the unknown Japanese bark ki-wada, the identity of which was ascertained to be *Pterocarpus flavus*. The examination of both to the bark of *Ecodia glauca*. Five specimens were examined, three of the bark of *Pterocarpus flavus* and two of the Japanese known to be obtained from *Ecodia glauca*. The latter were somewhat thicker barks, and in other respects they were identical in appearance. Microscopically they were also found to be the same, the chief feature being corky cells presenting the appearance of lamellae, containing in each division a crystal of calcium oxalate. The fibrous portion consisted of lamellae. The histological characters of the barks were described and illustrated by means of photographs of sections. It was impossible, remarked the author, from a microscopic examination to conclude that the barks are identical. They were also examined chemically. Berberin is the yellow crystalline matter of *Ecodia glauca* bark, and this was found to be present in all five specimens; the reactions with chlorine and sulphuric acid having been given with certainty. The conclusion arrived at, therefore, was that the Chinese bark hwang-peh, like the Japanese bark ki-wada, the product of *Ecodia glauca*.

On the paper, Mr. Thomas Greenish spoke in a complimentary manner regarding the efforts of the Society. He then proceeded to point out how it was a reading paper which treated of the microscopic characters of drugs to have before the audience illustrations of the different sections spoken of; and to separate the peculiar cells and illustrate these by means of photographs.

Mr. J. H. Holmes said that the paper had two points of practical interest. First, it referred to a bark containing berberin, as used in China as a medicine, and also as a dye in Japan. He considered that the work which Mr. Squire had done was of the most valuable nature, as it was a very difficult task to make sections of these partly hard and partly soft substances. Moreover, as an eminent botanist, he had called the study of the microscopic characters of drugs to the attention of the Society, and that was eminently so in this case.

Mr. Squire being effectively replied to Mr. Greenish, and pointing out that the photographs which he had shown sufficiently represented the sections, the PRESIDENT moved a vote of thanks, and congratulated Mr. Squire on his first paper before the Society as an investigator.

TRIATED IPECACUANHA.

By Francis Ransom.

The author referred to a "false ipecacuanha" which had recently appeared for sale in the London market. It was a root, coloured externally, not annulated, but marked longitudinally. The powdered root was of a red colour; it contained starch, but no glucose. When broken the root

was found to possess a corky portion which was distinctly porous and otherwise unlike true ipecacuanha. There was no difficulty in recognising the root as that of *Psychotria emetica*. A similar root is sometimes referred to a *Richardsonia scabra*. Long ago Pelletier reported, as the result of an analysis, that the root contained 9 per cent. of emetine; but he subsequently admitted that his alkaloid was far from being pure, so that this analysis cannot be relied upon. To test the matter further, the author extracted 20 grams of the powdered root with ammoniated chloroform by continuous percolation. Part of the percolate was shaken with water acidulated with sulphuric acid, and this solution, separated and tested with Meyer's and other alkaloidal reagents, gave an exceedingly slight indication of the presence of alkaloid. Another portion of the ammoniated chloroform percolate was shaken with water acidulated with acetic acid, and this aqueous solution on evaporation responded feebly to the test for emetine. This indication was followed up by a quantitative test, which resulted in 0.027 per cent. being found as the quantity of alkaloid in the root. It therefore appears that striated ipecacuanha is of little value, so far as chemical tests can show, and these are corroborated by physiological effects. Thus, 60 grains of the powder had no effect upon the author; a dog swallowed $\frac{1}{2}$ oz. of it and showed no signs of discomfort; and Professor Cash, of Aberdeen, has experimented with it and finds it to be inert. A museum specimen of the same drug gave similar results.

The PRESIDENT, in moving a vote of thanks, said that the practical outcome of the paper was extremely valuable. It showed that the root was possessed of no therapeutic activity. He wished to say that all these terms, "false," "striated," and the like, applied to ipecacuanha were extremely unfortunate, and gave rise to misconceptions. All these substitutes were valueless, and the terms should be expunged from textbooks.

The last paper was on

COCAINE AND ITS SALTS.

By B. H. Paul, Ph D.

The author stated that the quality of commercial salts of cocaine is far from satisfactory, although better than when the alkaloid was first used. Recent medical literature shows that there is amongst medical men grave suspicion regarding the alkaloid, this suspicion being based upon the varying physiological results which have been obtained. The author thought that this might be traced to difference in the quality of the cocaine used. He then proceeded to give a résumé of Dr. Squibb's experience of commercial cocaine hydrochlorate. Dr. Squibb examined nine brands, and as a result divided them into four groups, viz., two granular and two crystalline, all being really crystalline; but Dr. Paul was of the opinion that this was too liberal a term, only those which are absolutely pure being crystalline. Commercial specimens are frequently amorphous, tests showing them to consist of crystallised cocaine and an amorphous body. The difference in the appearance is not, as Squibb says, "a mere difference in the physical condition." Pure cocaine and its salts readily crystallise. On dissolving a quantity, say 5 or 10 grams, in as much water, and evaporating, the residue crystallises readily, the white crystals radiating from the centre; but an impure salt so treated leaves a yellow and gummy residue. This difference is due to the presence of an amorphous body in the impure salt. What this is the author would not say, but he stuck to his opinion that it is not hygrine, which he considered to be a mythical substance. Whatever this substance may be, it is important to be able to detect it readily. Squibb has proposed a chloroform test; 5 c.c. of chloroform, free from alcohol dissolve 0.4 gram of dry cocaine hydrochlorate, and the more water the hydrochlorate contains, the less chloroform is required to dissolve it. For example, 0.4 gram of one specimen required only 0.9 c.c. for its solution. If to the chloroformic solution three times its volume of pure ether be added, Squibb states that the pure cocaine salt is precipitated, the amorphous substance being retained in solution. Dr. Paul, however, did not consider the test very conclusive, as chloroform also dissolves benzoyl-ecgonine and other undesirable contaminants which are precipitated by the ether. He also dissented from Squibb's conclusion that the granulated crystals are equal in value to the pure crystalline variety, and criticised Dr.

Squibb's remarks at considerable length. After referring to Dr. Stockman's investigations on amorphous cocaine (which go to show that it is a solution of crystallised cocaine in hygrine), and reiterating his opinion that hygrine is a myth, he proceeded to give an account of experiments with the crude cocaine which comes to this country from South America. This he had found to contain earthy substances in considerable quantity (including calcium carbonate), a waxy substance, and a trace of petroleum. Evidently it is obtained by treating the leaves with lime and dissolving out the alkaloid with petroleum, which accounts for the odour of the latter. The amount of alkaloid in this crude cocaine varies from about 80 to 90 per cent. It always contains amorphous alkaloid in variable quantity, one sample containing 85 per cent. of total alkaloid contained at least half of that in the amorphous condition. The alkaloid separates from the hydrochloric acid solution of the crude cocaine on addition of ammonia in the form of oily drops, which require as much as one or two days before crystallisation sets in. The solution is always milky, and the alkaloid separates in rather a pasty condition, whereas the pure salt gives a pulverulent precipitate like ammonio-phosphate of magnesia, which rapidly crystallises. It was found to be exceedingly difficult to purify this cocaine; fractional crystallisation was unsatisfactory, but a better result was obtained by dissolving it in strong alcohol and adding water to the solution, whereby the cocaine is obtained in finely divided crystals with little loss. Heat must not be applied in affecting the solution in alcohol, otherwise the cocaine is rapidly decomposed.

The characters which pure cocaine hydrochlorate should possess are as follows:—It should be free from colour, and should dissolve in water to form a perfectly transparent and colourless solution. It should be free from odour, especially a mousy odour, and the odour of benzoic acid. Also, it should be neutral. Some commercial specimens of the salt are acid to test-paper, due, according to Dr. Squibb, to slow decomposition of the salt by the action of the water contained in it, acid being set free; but the author stated that this is not so, and he has heated cocaine hydrochlorate for a time in a sealed tube without decomposition. The most satisfactory test, according to the author, is the ammonia one. Pure cocaine hydrochlorate dissolved in water when treated with solution of ammonia yields a precipitate which rapidly becomes crystalline, and amounts to 89 per cent. by weight of the salt. It has been stated in books that this precipitate is soluble in excess of ammonia, but this is not so. The precipitate disappears on standing, owing to decomposition, the loss of a precipitate in eighteen hours only amounting in one case to 3 per cent. The following are the results of the examination of a dozen commercial specimens by means of the ammonia test:—

Water Per cent.	Cocaine Per cent.	Water Per cent.	Cocaine Per cent.
1. 0.9 ..	.. 85.6	7. 0.43 ..	.. 81.04
2. 0.5 ..	.. 84.3	8. 9.47 ..	.. 74.9
3. — ..	.. 84.0	9. 2.0 ..	.. 78.6
4. 1.0 ..	.. 83.6	10. 0.57 ..	.. 78.21
5. 0.43 ..	.. 82.6	11. 2.39 ..	.. 73.4
6. 1.19 ..	.. 81.35	12. — ..	.. 65.3

The first eight of these gave precipitates which rapidly crystallised. The difference in the amounts obtained is practically the difference in the water content. The last four specimens are very bad. No. 9 contained only 66.4 per cent. of crystalline, and 12.2 per cent. of amorphous alkaloid; No. 10 contained 43.28 and 34.93, and No. 11 41.7 and 31.7 per cent. respectively of crystalline and amorphous alkaloid. The author emphasised the importance of noting the character of the precipitate. In the case of the bad specimens this is always gummy or oily, and as cheap cocaine salts are invariably of this character, it is obvious that they should be carefully examined. The author stated that he had received from Dr. Fuller, of the New York Quinine and Chemical Company, a quantity of the amorphous substance in question. It is in the form of a viscid liquid, like Canada balsam, yellow in colour, bitter to taste, possessing a characteristic odour and alkaline in reaction. It differs chemically from quinine, is freely soluble in alcohol and ether, and dissolves in dilute hydrochloric acid forming a milky solution. A neutral solution of the hydrochlorate becomes acid when

heated in a sealed tube; hence to the presence of this is due the acidity of cocaine salts. The author is continuing his investigation. In conclusion the author referred to the utility of MacLagan's ammonia test, but recommended water to be used. He had had some experience with the method recommended by Mr. Williams, viz. solution of hydrochlorate in absolute alcohol and precipitation with pure ether, and had found that the hydrochlorate of amorphous alkaloid is precipitated along with the cocaine salt. He therefore thought that this method of purification was only suitable for purifying pure salts. (Laughter.)

Mr. STOCKEN, L.D.S., on the invitation of the President started the discussion. He said that dentists had found action of cocaine as a local anæsthetic to be so erratic that they were losing confidence in it, and were, indeed, afraid to use it. He had employed it in three cases. In the first was quite satisfactory, but in the other two very serious symptoms were produced. A medical gentleman was on the patients in whom toxic effects were produced. He previously injected cocaine into this gentleman's gums, there was no bad effect; but a second time, immediately the tooth was removed, the patient experienced pressure on the heart, numbness of the extremities, and a pause, but intellect was quite clear, although there was some anxiety. These alarming symptoms were relieved by the administration of another similar case was related, in which difficulty in swallowing was experienced, and this patient was so influenced by the drug that he gave Mr. Stocken direct as to what should be done when he died. The Odontological Society have recently investigated the matter with curious results, some dentists having only been relieved by the use of the most disagreeable. On the whole, the speaker felt, after hearing the paper, that a toxic system must be due to the use of impure cocaine, and he said that in the case of his medical patient the second time was different from that occasion. It was not a question of idiosyncrasy. The patients were fresh.

Mr. POSTANS suggested that cocaine should be preserved in the form of gelatine lamellæ.

Mr. MARTINDALE fully corroborated the remarks regarding the ammonia test. If the cocaine salt was crystalline and pure, it could be used with safety. He had examined specimens of cocaine hydrochlorate which occurred in micaceous crystals were not pure; the crystals were better, and should be perfectly free from impurities. He exhibited specimens of these different varieties, all sample of cocaine saccharate, made by digesting cocaine with saccharin together. This combination has been recommended as an application for the throat, and is free from bitterness. It is somewhat deliquescent.

Mr. SYDNEY PLOWMAN, F.R.C.S., said that we apparently on the threshold of the subject as little as be said until the physiological action of the amorphous substance was known. It was interesting to hear that it had no anæsthetic action when placed on the tongue, but might have when applied to the eye or injected cutaneously. He quite agreed with Mr. Stocken that different observers had come to different conclusions regarding cocaine. He had used cocaine extensively at least in injections, and as the result of observation cases had come to the conclusion that toxic results were a matter of idiosyncrasy. For instance, he had injected a grain into an emaciated child, well-nigh dead, and it produced no bad effect, but the quantity was quite poisonous to an adult. It was quite possible to induce alarming symptoms in an adult. It was not that the toxic effects in some cases were due to impurities, but that they could not tell until they isolated the impurities and determined their physiological action. The meeting that, as the result of experiments had something to do, Dr. Edmunds had stronger solution than 5 per cent. should be more dilute the solution the more readily are effects produced. He thought the saccharin necessary refinement. It was not the taste to in throat cases, but the feeling of restriction. He agreed that the granular cocaine was the better. He had used it without toxic effects. That was the case in the days of cocaine, when it was said to be less than no cocaine.

Mr. HOLMES asked Mr. Stocken if he used

empty stomach. Yew berries were poisonous to sheep eaten on an empty stomach, but not so when digested with food. Few was a cardiac poison, and it was possible that the effect of cocaine on the heart might be due to the use of yew leaves in the market, and it was the green variety which was said to yield hygrine. STOCKEN stated that dentists always gave anaesthetics on an empty stomach, as they acted better. He also stated that half a grain of cocaine had not produced bad effects; it was the larger dose (one grain) which did that. BROWN considered gelatine to be an excellent preservative of cocaine, and that magnesia and aluminum were less than other alkalies to change it to the anhydrous state.

COATS remarked that he had found solution of salicylic acid of cocaine keep better, and to satisfy medical men than solution of the hydrochlorate.

PAUL, in reply, said that if the hydrochlorate was used, the solution carefully kept free from organic matter, it kept for long time. But there was no necessity for keeping the solution in stock, as it could be readily prepared when wanted. He did not think that a solution of ferrous sulphate would be satisfactory, as the alkaloid could be precipitated by the water of the tissues when the solution was injected. He again emphasised some of the points regarding purity mentioned in the paper, and that the object of his communication was not to discuss physiological effects of the amorphous substance—that it was of interest to dentists and doctors. He could assure Mr. COATS that it was not a matter of faith, but of fact, that the official specimens of cocaine contained amorphous substance, and all that he said was that this was a probable cause of differences in results. Salicylic acid, like acetic acid, changes cocaine altogether, so that a solution of salicylic acid would not contain cocaine at all.

PRESIDENT wound up the discussion with a few preliminary remarks, after which Mr. HOLMES briefly read the specimens upon the table, amongst which were seeds of loganin (the glucoside of nux vomica), shown by the polariscope; Eucalyptus honey, botanical specimens of *Asafoetida* (root of *Ferula* sp.), a new variety of strophanthus seeds, and several specimens of Ceylon drugs.

EDINBURGH CHEMISTS', ASSISTANTS' AND APPRENTICES' ASSOCIATION.

MEETING was held in the Pharmaceutical Society's Lecture Room, Edinburgh, on March 7, at 9.15 P.M., Mr. George W. B. being President, in the chair.

First paper read was on
TINCTURE OF FERRI MURIATIS, PH. ED.

By A. W. King.

In some preliminary remarks regarding the therapeutic value of iron, the author traced the changes in the preparation of the Edinburgh Pharmacopoeia. In 1753 it was called *ferri murialis* Edinb., and was made from iron filings and muriatic acid; then the name of the tincture was changed to *tinctura ferri muriatis*, and it was made from black oxide of iron and muriatic acid; finally, red oxide of iron was substituted for the black oxide, the name being:

Red or sesquioxide of iron	6 oz.
Muriatic acid	1 pint
Rectified spirit of wine	3 pints

The mixture was to be left for three days in a glass vessel with agitation.

late Sir R. Channing was not pleased with this change, the tincture no longer contained protochloride of iron, to which, in the greater part, he attributed its tonic effects. This view was based on the supposition that the tincture contained nothing but peroxide of iron. He made by precipitating a solution of sodium carbonate, collecting and igniting the precipitate. The author examined two specimens of the tincture, and found in one 15.98 per cent. of ferrous oxide,

and in the other 18.79 per cent. It is obvious, therefore, that the tincture must contain protochloride. Three commercial specimens of the tincture were reported upon. These had the following specific gravities: I. 0.961; II. 1.026; III. 0.982; and contained respectively 23, 29, and 25 grains of ferric oxide (Fe_2O_3) in each oz. Mr. Phillips, the editor of the London Pharmacopoeia, stated that the London preparation made in a similar way contained 30 grains of the oxide in each oz., so that tincture II. is the only one which at all approaches to this. The author had difficulty in estimating the amount of ferrous salt in the tincture, owing to the presence of other oxidisable ingredients, but by a colorimetric method, viz. the comparison of the colours developed with solution of ferrous sulphate of known strength and a solution of the tincture on addition of potassium ferricyanide. This test indicated roughly that tincture I. contained 2 grs. of ferrous salt in each oz.; II., 5 grains; and III., 1 grain. Obviously the tincture is far from being uniform, owing to variation, in the first instance, of the oxide used, and to the reducing action of the alcohol in presence of free acid. In concluding, the author referred to the necessity of prescribers indicating plainly that they wish this tincture when "tr. ferri mur." is ordered.

The discussion which followed was taken part in by Messrs. Boa, Duncan, Henry, Hill, Lunan, Macpherson, and Sharp. The latter stated that the Edinburgh tincture was specially recommended by Sir William Turner as an antiseptic for the preservation of anatomical preparations, its superiority over the official tincture being attributed to the presence of a small quantity of free chlorine, said to be present in the former.

Following this several valuable notes were read, entitled—

LEAVES FROM A PHARMACIST'S NOTE-BOOK.

By J. Rutherford Hill.

Before proceeding to read his notes Mr. Hill read a very interesting note which he had received from an esteemed honorary member, Mr. Peter MacEwan. This was a description, accompanied by a sample, of Chance's process for the recovery of sulphur from alkali waste.

Botanical Notes.—Last autumn the author found specimens of canary grass (*Phalaris canariensis*) on a rubbish-heap, north side of Queensferry Road, a little beyond Daniel Stewart's Institution, Edinburgh. The plant, which is the source of canary seed, is a native of the North of Africa and Southern Europe, and is cultivated in Central Europe. It has been found in the South of England, but nowhere else in Britain, as far as the author was aware, and he attributed the origin of this specimen to some stray seeds from some bird's cage. Another stranger which he had found on his walks was the flowering rush (*Butomus umbellatus*) which he found growing on the face of a cliff on Arthur's Seat, 750 feet above the sea-level. The plant grows abundantly near Duddingstone Loch, 600 feet below the spot. The natural habitat of the plant is watery ditches, still waters, or sluggish rivers. On the unusual site on which the plant was growing was a small basinlike cavity in the rock, full of very moist earth, the moisture being supplied by a small spring in the face of the rock behind, thus producing all the conditions suitable to the special requirements of such a plant.

Aldehyde in a Sample of Rectified Spirit.—Tinctura quinae ammoniata becomes brown immediately on the addition of the ammonia to the alcoholic solution of the alkaloid. It is well known that the tincture in question does become brown on standing, this change being due to some not very well understood change in the alkaloid, but which is common to most neutral or alkaline solutions of all alkaloids. In this case, however, the change took place at once, and, suspecting that the spirit used was impure, a sample of it was obtained, and it gave reactions for a larger amount of aldehyde with the official silver test than the B.P. permits. It was also found that this spirit decolorised permanganate of potassium more rapidly than pure spirit, and the aldehyde resin test was given with distinctness. These tests show that the immediate coloration of the ammoniated tincture of quinine is due to an objectionable excess of aldehyde in the rectified spirit used. It would be a useful addition to the official tests to say [as the German Pharmacopoeia does] that rectified spirit should not give a yellowish-brown colour on adding ammonia.

Nitrate and Carbonate as Impurities in Sodium Acetate.—Five commercial samples of sodium acetate, all described as chemically pure, were examined with the following result:—Three gave distinct evidence of nitrate; one contained no nitrate, but was distinctly alkaline to test paper, and on examination was found to contain 0.67 per cent. of sodium carbonate; and the fifth alone could fairly be described as chemically pure. Dunstan has pointed out that nitrite is a common impurity in potassium hydrate, this being derived from nitrate added to effect oxidation of iron during the manufacture of caustic alkali. Dr. Atkinson has also stated that he found nitrite in potassium and sodium carbonates, but never in any of the salts prepared, directly or indirectly, from these compounds; and he accounts for this by saying that "even were any present in the carbonate used, it would obviously either be destroyed in the process or left in the mother-liquor." The author did not find nitrite in these samples, and thinks that Dunstan has probably correctly indicated its source. The sample of acetate which contained carbonate was in larger crystals than the other samples.

Infusion and Tincture of Senega.—In this note the author recorded the results of observations on the precipitates which are found in these preparations. It was shown that equal parts of rectified spirit and water are not as good a menstrum as proof spirit for senega, as the tincture prepared with the former deposits much more quickly and abundantly. Experiments had satisfied him that the deposit in question is saponigen, due to the decomposition of saponin. This decomposition goes on in all tinctures; but as those containing as much or more alcohol than proof spirit retain the saponigen in solution, the decomposition is not apparent. Glucose being formed simultaneously, it is evident that this will give an indication with Fehling's solution of the extent to which decomposition has taken place. And so it proved to be on trial. A fresh tincture gives comparatively little reduction, but a year-old tincture gave much greater reduction. The author believed that the precipitate which forms in concentrated infusion of senega is the same substance. The infusion, filtered clear, continues to deposit saponigen, owing to decomposition and the small proportion (25 per cent.) of alcohol which it contains. [The deposit in this case may be prevented or redissolved by the addition of a few drops of solution of ammonia to each oz.—Ed. C. & D.]

Fresh and Concentrated Infusions.—A comparison of a fresh infusion of cinchona and two samples of commercial concentrated infusion showed that the alkaloid in each case was:—Fresh, 0.26; concentrated, 0.125; and 0.063 per cent. (calculated on the diluted preparation). The alkaloidal value of the bark used in all cases was not known, but the author added that the figures show that the best concentrated preparation is only one-half the strength of the fresh infusion. In appearance, colour, and aroma there was also a very decided difference between the fresh and concentrated samples.

The other notes dealt with ferrum redactum and cocoa. In the former the author stated that six commercial samples, when treated with iodine, indicated 90, 85, 60, 56, 40 and 40 per cent. of metallic iron respectively. All the samples gave off sulphuretted hydrogen when dissolved in hydrochloric acid. The official test in this respect was, he thought, too exacting. It would be sufficient to require that not more than a trace of sulphate should be present.

A discussion followed, which was taken part in by Messrs. Duncan, Henry, Lunan, and Macpherson, Mr. Lunan suggesting that ferrum redactum might be obtained free from sulphur if prepared from liquor ferri perchloridi instead of liquor ferri persulphatis.

Messrs. J. Wilson, D. McEwan, and A. R. Bennet were appointed secretary, treasurer, and assistant secretary respectively, these offices having become vacant through members leaving town.

THE PRESCRIPTION MARKET.—An American newspaper correspondent at San Remo offered the English chemist there 60% for copies of Sir M. Mackenzie's prescriptions dispensed by him for the Crown Prince, but (says the *Times* correspondent) this impudent offer was of course declined.

THE RECORD BEATEN.—The Orient Liner *Orizaba* arrived at Plymouth from Australia on Tuesday, having made the fastest passage yet recorded. She left Adelaide on February 6, the length of the passage being 32 days 3 hours.

THE INDIAN OPIUM TRADE

NEXT to land, opium is the most productive of the principal sources of revenue in India; but, excepting the insignificant portion raised in the form of excise upon local consumption, the whole of the opium revenue is paid by the foreign consumer. In the first instance, however, is obtained either by monthly sales in Calcutta, or by the opium grown in Bengal under a strict Government monopoly, or else from transit dues paid by the opium growers in the States of Malwa as it passes the landward frontier into the Bombay Presidency. The manufacture of opium in Bengal involves the Government in heavy expenditure; but in Bombay the only expenditure required is the payment of a few clerks for weighing the drug at the frontier railway stations.

The number of chests sold by auction in Calcutta in the financial year 1885-86 was 50,994, and the average price which they were sold 1,234 rupees per chest in Bombay 37,677 chests paid duty at the rate of 650 rupees. The chest in Bengal in 1886 was a heavy one, and the sale of opium was increased during the year from 58,389 chests at the beginning to 73,016 at the end.

The following figures give the produce of an area under culture:—Land sown for cultivation in Berar, 445,000 bighas; produce at 70° consistence, 55,802 maunds. Land under culture in Benares, 475,195 bighas; price at 70° consistence, 78,001 maunds. A bigha is nearly one-third of an acre, and a maund approximately 80 lbs. The demand for opium appears to have been considerably finer than that produced at Benares.

The number of chests imported into Bombay in 1885-86 was only 40,036½, of which 37,173 chests were reported to have been consumed in China. The price of a chest of opium in Bombay is determined mainly by the demand in China, and in 1885 the price ruled low, being 1,165 rupees per chest for opium of the common quality compared with 1,169 rupees the previous year. The committee of the year the principal opium merchants of Bombay addressed a memorial to the Government of India praying for a reduction in the duty on opium exported from Calcutta from 650 rupees to 500 rupees. They based their petition on the grounds of the enhancement of the tax on opium by the Chinese Government, and of over-production in Malwa. There is no doubt the trade was in a very depressed condition. No change, however, in the rates has been made.

The consumption of opium in Bombay goes on at the rate of 145,395 lbs. were disposed of in British districts of the Presidency, and 141,396 lbs. were sold in the subordinate to Bombay. Smuggling is still largely prevalent in the northern portions of the Presidency, for opium to the amount of 2,097 lbs. was captured during the year.

Assam and British Burma are the two provinces in which opium is most largely consumed. In the former it contributes as much as 83 per cent. of the total excise revenue, or over 8d. per head of the population; in the latter, or 9½d. per head. The number of opium shops in British Burma has been reduced from 68 to 3, and the selling price raised to 3l. 2s. per seer of 2 lbs.

Ganja, an intoxicating preparation of hemp, is consumed in Bengal and the Punjab, and especially by the Muhammadan population. As the use is steadily checked by means of progressive taxation of the rate of duty. In Bengal the amount of opium larger duty than opium. In 1883 the amount of opium being 19 per cent. of the total excise revenue. In 1886, of that year the total number of shops was 3, and the reduction of 200, and the duty was raised 2s. per seer. These means the consumption was reduced to 5, a decrease of 1,000 maunds. The revenue derived from ganja was 32l. 18s., as compared with the average of 2l. 3s. 6d. for the five previous years. The principal other drugs upon which an excise duty is levied are madak and chandu, two preparations of opium, the former of which is said to be specially deleterious. The consumption of the poppy is prohibited throughout the Bombay Presidency, and in native States, except in Baroda. The opium is made into ha-

arch 1888]

each, and packed in chests each containing the chest uniformly weighs a fraction over the big equivalent to the Chinese picul (133½ lbs.), 5 per cent. thrown in for trade perquisites. Owing to difference in manufacture, a chest of Behar, which is made of the consistence of 75°, contains 107 lbs. of "fine" opium; while a chest of Benares, which is made of the consistence of 70°, contains 98½ lbs. of "fine" opium. The "consistence" is the percentage of fine opium excluding all water. In Bombay, the mode of levying the duty favours a high consistence, a chest of the same weight is estimated to contain 126 lbs. of "fine" opium.

The appended table column 1 shows the number of chests of legal opium sold for export; column 2 the number of chests issued to the excise and medical department in Presidency; and column 3 the number of chests which duty at Bombay.

	1	2	3
7	47,240	3,772	40,136
8	49,500	4,092	45,803
9	55,500	4,383	56,807
0	59,110	4,468	62,211
1	56,400	4,148	56,070
2	56,400	4,384	51,196
3	56,400	4,910	56,327
4	54,400	4,370	58,583
5	46,698	5,522	59,039
6	50,994	4,441	57,677
al	53,262	4,443	39,685
ge			

Opium Exports from India.

	Chests		Chests
7	130,775	1882	89,338
8	92,822	1883	91,798
9	91,200	1884	91,963
0	105,507	1885	86,578
1	92,190	1886	87,956
2			
3			
4			
5			
6			
7	12,404,748	1883	11,481,379
8	12,374,505	1884	11,294,450
9	12,993,985	1885	10,882,603
0	14,323,314	1886	10,735,518
1	13,600,148	1887	11,076,689
2	12,432,142		

value of the opium exported by sea from India on the account is thus given for the official years ending—

	£	£
7	12,404,748	11,481,379
8	12,374,505	11,294,450
9	12,993,985	10,882,603
0	14,323,314	10,735,518
1	13,600,148	11,076,689
2	12,432,142	

the expenditure incurred on opium seems to be about £100,000 per annum, and the net receipts during the last years averaged 5,867,335½.

The last year's shipments (1887) were as follows to—

	Chests	Cwts.
Straits Settlements	11,396	16,715
Hong Kong	65,217	89,877
Treaty Ports	17,907	23,110
Cochin	1,150	1,683
Other countries	169	242
Total	95,839	131,630

P. L. S.

INSECT FLOWERS.—A Berlin pharmacist, Dr. R. Hasen, has been experimenting with powder from the insect rais at the Horticultural Society's grounds near H. Heads that the powdered flowers from *Pyrethrum*, *Berolense*, act very satisfactorily, killing the insects immediately upon after forty-five minutes. The powder of *weasol*, *Berolense*, was less active; the insects were not stupefied, but even after having been kept several hours in the powder under a glass they remained alive. The *carneum* powder had no action whatever. Dr. R. considers the results obtained sufficiently encouraging to warrant the extension of the cultivation of *pyrethrum*, especially of the *roseum* variety. He recommends, however, addition of lime to the soil set apart for cultivation.

Dental Notes.

MOUTH-WASH.

A TEASPOONFUL of a lotion prepared according to the following formula, in a wineglassful of warm water, used every morning as a mouth-wash, is good for restoring firmness to the gums when the teeth are loose:—

Tannin	1½ drachms
Iodide of potassium	12 grains
Tincture of iodine	1 drachm
" myrrh	1 "
Rose-water, to	6 oz.

Dissolve the tannin and potassium iodide in the rose-water. To this add the tinctures, and strain.

A NEW OBTUNDER.

NITRATE OF SILVER in strong solution is recommended by Mr. W. George Daish for treating sensitive dentine preparatory to stopping teeth. The solution causes increased pain at first, but this generally subsides and does not return. Mr. Daish believes the nitrate acts in virtue of its proneness to decompose in contact with organic matter. It acts promptly, so to speak, upon the gelatinous portion of the tooth, destroying its vitality to the extent of the combination which takes place; and by a decomposition of a part of the salt, and the consequent liberation of a part of its acid, it acts also with energy upon the calcareous portion, but the compound formed by the nitrate with the organic constituents of the tooth is insoluble except in a few substances, and therefore protects the subjacent parts. The precipitation of the reduced oxide on the surface also affords, he believes, some additional protection, and the insolubility of the compound prevents the absorption of the nitrate by the dentine, rendering its action necessarily superficial.

PARSON'S LOCAL ANÆSTHETIC.—Dr. Parsons has published the following as the formula of his anæsthetic:—

	Parts
Chloroform	12
Tincture of aconite	12
" capsicum	4
" pyrethrum	2
Oil of cloves	2
Camphor	2

Dissolve the camphor in the chloroform, add the oil of cloves, and then the tinctures.

ALUMINUM DENTAL PLATES.—Mr. George H. Swift states that the early use of aluminum was not satisfactory, as the metal was impure, owing to the presence of iron, and it soon succumbed to the fluids of the mouth. This was more generally true of cast plates, which were not only more difficult to make, but were not as good. The metal is not very easy to cast, as it does not flow freely like other metals, and the contraction is considerable, causing cracked blocks. When made from rolled plate, and pure metal, aluminum for upper cases has proved very satisfactory in his hands, and not being very expensive is a recommendation, as it is a metal, and is thus better than rubber and less in cost than gold. It is very light and strong, perfectly tasteless and odourless, and as healthy to the gums as gold or platina. The teeth are best attached with rubber.

TOOTHACHE PELLETS:—

	Grains.
Cocaine hydrochlorate	16
Powdered opium	64
Menthol	16
Powdered althaea	48
Mucilage of acacia	9

Make into ½-grain pills and keep in well stoppered vials. For use, one of these is to be inserted into the hollow tooth.

THE NEW AUSTRIAN PHARMACOPŒIA will appear in December next. The pharmacognosy section is said to be compiled by Professor Vogl; the chemical section, from A to K, by Professor Ludwig, and from K to Z by Professor Barth; while Mr. M. R. Schneider will edit the whole. The authors are very reluctant to give any details about the progress of the work.

MR. BLANK'S ADVERTISEMENT.

There is an old-fashioned ring about the next communication, which is sent by W.:-

MR. BLANK, chemist, Dull Town, dispenses prescriptions with the greatest care and accuracy, using the purest and best medicines obtainable. All drugs are carefully examined before being received into stock, and preparations of them made in his own laboratory. New medicines supplied without unnecessary delay.

Mr. Blank has in stock a large assortment of requisites for the Nursery, and Sick-room, Feeding Cups, Medicine Measures, Thermometers, Inhalers, Spray Producers, Enemas, Syringes, &c.

Especially care is taken in the fitting of Trusses, Belts, Elastic Stockings &c., satisfaction being assured.

Our next correspondent ought to satisfy that wonderful pharmacist who has lately been raving about "the interaction of the egoistic and altruistic principles." Though poor Blank should entirely surrender himself to his customers' interests, as he declares in this case he will do, we doubt whether he will any the better arrest the flow of trade to the cutting shop opposite, unless he should as well offer a better shilling's-worth for a shilling than his neighbour.

MR. BLANK,

CHEMIST AND DRUGGIST,

while taking the present opportunity of thanking his numerous customers and friends for their past and present favours, hopes by entirely giving himself up to studying their interests to merit a continuance of their support; also to gain their confidence by executing all orders intrusted to him with accuracy and pure chemicals. Specialities in all branches of the trade. A large number of patent medicines always in stock. Articles not in stock procured without delay.

Dull Town.

W. F. E.

Mr. W. G. Blackham goes back to Horace for a starting-point, and draws up the following:-

"Why do we, whose period of life is so transient, aim at so many things?" asks Horace—and echo answers, Why?

Why do we not at once enter on the practice of virtue, and instead of first trying this COUGH MIXTURE and that FAMILY RECIPE, be

Cured at Once by One Bottle

of

BLANK'S WILD CHERRY COUGH ELIXIR.

Prepared by an improved process from the *Pruni Virginiana cortex*, and elegantly acidulated and combined with other infallible remedies.

THE WILD CHERRY COUGH ELIXIR

does not derange the stomach, but, on the contrary, acts as a tonic, is at once soothing to the throat, chest, and lungs, and agreeable to the palate.

The most violent FITS OF COUGHING are reduced at once in severity; DIFFICULTY OF BREATHING is relieved; that dull, depressing pain in the chest is removed by one or two doses; and in all cases of ORDINARY COUGHS, if taken in time, A FEW DOSES WILL EFFECT A CURE.

Sold in bottles, 1s., 1s. 9d., 3s., and 5s. 6d.

Sole proprietor—

J. BLANK,
Dispensing and Family Chemist,
Dull Town.

If Horace and the *Pruni Virginiana cortex* do not fetch the shillings, the therapeutic knowledge afterwards displayed ought to have that effect.

Mr. F. Gall, of Landport, tries to arrest the public's mad rush to the cutters by the following argument:-

MR. JOSEPHUS BLANK,

Chemist and Druggist,

88 High Street, Dull Town,

Requests the attention of the public, in these days of low prices, to the fact that quality is the only true test of cheapness. If this be true of the ordinary articles of our food, drink, and raiment, it is still more important as regards our medicines, which, unless carefully prepared from genuine drugs and chemicals, and dispensed correctly, will baffle and disappoint the physician, be he never so skillful. The public can rest assured (being

unable, as a rule, to judge the qualities of drugs for themselves) that they will be well served with genuine articles at strictly moderate prices by applying to Mr. J. Blank at the above address. To those who have already given him their confidence he returns his grateful thanks.

We come now to a competitor who does not play fair, but who indicates to us his identity, and writes "sarcastical." He proposes the following:-

BENJAMIN BLANK, ESQUIRE,

So-called Chemist and Druggist,

Dull Town,

Condescends to inform the royalty, aristocracy, and gentry that he is a chemist and druggist at all; that he has a contempt for the trade, and really a highly scientific professional gentleman.

That he makes no charge for any articles supplied by him, but only for his scientific skill in handing over the same.

That he will have only official articles in his "office," and that no one else are such absurd radicals as to want inventions, they may go to the unprofessional chemist round the corner, or the — for them.

That he is much surprised that the royalty, aristocracy, and gentry should get their prescriptions dispensed at the stores at prices, when the professional services of "one of these" are available.

In consequence of which desertion he regrets to inform the aristocracy, and gentry that the position are getting all the more trade with their unethical enterprising ways, actually introducing things which have never been even asked for, but only advertised in that journal (which he don't take, by the way).

And, lastly, that he begs the royalty, aristocracy, and gentry will take tickets in a raffle for his daughter's piano, which must be disposed of at once, as the rent is overdue, the till empty, and the land threatened with distraint.

N.B.—Unprofessional chemists may also take tickets in the raffle.

Mr. Amos, Maidstone, who sends the next proposal, seems to demand a little too much faith in Mr. Blank as a conqueror. He does not tell us what sort of a conqueror he will be.

IMPORTANT FOR YOU.

Yes, you who are holding this paper, with your hands perpetually cracked or fingers swollen double with chilblains, and who have, if you have read thus far, coughed nearly to choking from cold that has settled upon you. These are the effects of winter. But Mr. Blank's cough mixture copes with its severity, and offers to all a magic triad of relief. For 1s. any one, or 2s. 9d. all three maladies can be cured with a wet blanket.

Send at once to

MR. BLANK, The Medical Hall, Dull Town.

The suggestion offered below by Mr. Edmondson, Rattlemines, is for a style of advertisement which would attract attention in a paper crowded with advertisements.

This space has been reserved by Mr. BLANK, Chemist and Druggist, Dull Town, whose reputation is such that it is unnecessary to say more about it.

We have to thank Mrs. Arthur Woodcock, 235 Dull Street, Norwich, for the next proposal, which appears to many of us a genuine bargain.

A GENUINE BARGAIN.

To be sold, publicly or privately, at the shop of Mr. Blank, 235 Dull Street, Norwich, for the small sum of 13½d. each lot, a large quantity of Liver Pills.

dispute arise between the buyers, as Mr. B. has made full ar-
ments supply all. Each lot will be in good condition, and
nted to are all those suffering from biliousness, nervousness, indi-
n, head, e, and liver complaints.
-Bills comes on the morning of March 1, at 9 o'clock sharp.
pecting sale can be had of the proprietor on application.

£1 REWARD.

above ward will be given to any person sending Miss Egmont
Teg., thourne, the correct address of

MR. BLANK,

CHEMIST AND DRUGGIST
(Somewhere in Dull Town),

BRONCHITINE,

A certain specific for Coughs and Colds.

R.

FOUND DEAD.

DISCOVERY was made yesterday in a house in town, where
members an entire family were found with life entirely extinct, in
nuence of too free use of W. BLANK'S CARBOLIC POWDER on the floors.
uld be said that the corpses found were those of FLEAS, and the
r is supplied by

W. BLANK,
CHEMIST AND DRUGGIST,
York.

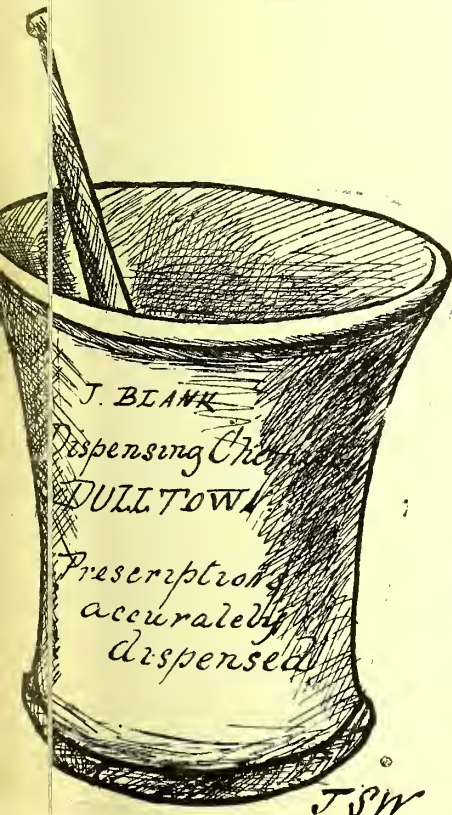
T. S. PEARSON, Maidstone.

"There is a remedy for every ill."

remedy for corns; it has always proved a certain cure
d or soft corns; it cures in every case, and will do so in yours.
The rose has a smell, and so have onions;
Corns are sore, and so are bunions."

OW TO REDUCE CORNS. WHY CUT 'EM?

nonsense. Well, it is nonsense for people to go on suffer-
get a 1s. bottle of BLANK'S PALMINE. One application
the paid a few applications effect a certain cure. The hundreds
ring to monials received from all parts are a guarantee of its
nd gen eness. Contains no acid, does not burn, causes no pain,
t effectual.



Sensational advertisements are sent up in abundance.
Some of the most interesting are given below.

IF IT SHOULD BE REPORTED THROUGH THE TOWN
that
THE QUEEN IS DANGEROUSLY ILL
or that

GLADSTONE IS DEAD

we should all feel very surprised and anxious to know if these
rumours were true;

but BLANK, of 31 FORE STREET, DULL TOWN,
would feel still more astonished and doubtful of the truth of the
statement if he heard that his

VEGETABLE PILLS

had ever failed to relieve anyone who took them regularly and
according to the directions.

SOLD ONLY by BLANK, 31 FORE STREET, DULL TOWN, In boxes, at 7s. 1s. 1s. 1s. & 2s. 3d.	ALL INDIGESTION LIVER COMPLAINTS CONSTIPATION FLATULENCE APPETITE	THEY CURE WIND INDIGESTION LIVER COMPLAINTS CONSTIPATION FLATULENCE APPETITE
---	---	--

E. G. BURROW, Wellington.

TRY
MY
REMEDIES
FOR
COUGHS
HOARSENESS
ASTHMA
BRONCHITIS
LIVER
PILLS
BLANK'S
LIVER
PILLS

DISPENSING A
JOHN BLANK
OPERATIVE CHEMIST
PERFUMER, DENTIST
TOILET REQUISITES ETC
PROPRIETARY ARTICLES
PURE DRUGS ETC.
**HOPE STREET
DULLTOWN.**

BLANK'S
DERMINE
FOR
3 MIN.

TRY
MY
MORE
THE BEST
REMEDY
FOR COUGHS
COLDS ETC
BRONCHITIS
ASTHMA,
IN ONE
CHILLING
BOTTLES.

OLD POSTAGE STAMPS

are comparatively valueless;

OLD CLOTHES

are not admired;

BUT BLANK'S

OLD ENGLISH LAVENDER WATER

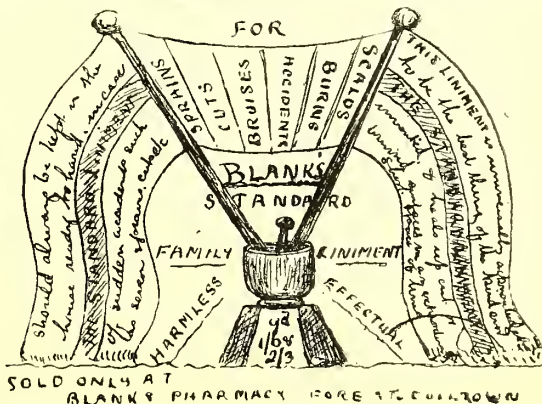
IS LIKE AN OLD FRIEND,

BOTH

VALUABLE AND ADMIRABLE.

Sold by BLANK, Chemist, DULL TOWN.

G. W. HODDER, 23 Bayswater Terrace, W.



Veterinary Treatment.

MUD FEVER.

THE disease known among horse-owners as mud fever is more or less of a regular visitor in winter time both in town and country districts, and the conditions which bring it about are not very clear. It is more frequently the scourge of the gentleman's than of the poor man's stable; while most diseases find a home among the ill-cared for and ungroomed, this is an exception, and it was as if by accident the remedy, or rather prevention, was discovered.

In 1871 many London horses died, and so aggravated a form did the disease take that many firms were unable to horse their vehicles, and great inconvenience and loss resulted. Some one then observed how night-cabbers and other horses that are put away dirty escaped, while the carefully washed and bandaged hunter was laid up. It was found that by leaving the hair on the lower parts of the limbs, and leaving the dirt on the hair till dry, very few cases of mud fever appeared; since that time the custom of clipping down to the elbows and nearly to the hocks has become much more fashionable, and is adopted by many without knowing the reason. Still, with all precautions, mud fever has been rife this winter, and metropolitan "vets" say the tram companies are to a great extent responsible, as they put down salt to make the track clear when frosted, and the salt increases the irritating power of the mud. This may be so; but horses are suffering just now that have never been in a town at all, and on chalky and clay soil alike, so that many horsemen think the disease comes from within, and is but a local manifestation of a systemic condition.

The horse, be he carriage, hunter, or other breed, comes in all plastered with mud, and is washed, dried (more or less), and put away for the night; if badly attacked he will be feverish and off his feed in the morning, stiff behind, and sore to the touch all down the fronts of the hind legs, and often all along the belly; the hair comes off very quickly, and the outer skin, or cuticle, desquamates to such an extent as to leave a raw surface and very great tenderness. Sometimes there is great swelling of the hind legs, the front ones participating to a lesser degree, and the belly often much swollen right along to the posterior portion of the sternum. In very bad cases the whole surface assumes a confluent mass, and the constitutional symptoms are proportionately severe, the thermometer registers 104° to 105°, and the animal rapidly becomes emaciated.

The treatment will, of course, vary somewhat, according to the severity of the attack, but the principle of it will be to reduce the pain and irritation, and prevent the malignant condition above described; to lower the temperature and restore appetite, and make the horse sufficiently comfortable and supple in his limbs to lie down on a good bed. With these objects, then, first foment with a lotion composed of glycerini, Oss.; aquæ, Cj., at a temperature of about 100° F.; and having with this softened off—and not rubbed—any adhering dirt or serosity, carefully dry the parts with a very soft towel, or lint, and apply one of the following lotions:—

	Acid. carbolic.	..	..	..	..	3j.
	Glycerini	..	..	..	..	3ij.
	Aquæ ad	..	..	..	..	3ij.
M.	Ft. lotio.	Ter die utend.				
vel,	Acid. carbolic.	..	..	..	..	3j.
	Ol. sesamæ	..	..	..	..	3x.
M.	Ft. lotio.	Applic. omni die.				
vel,	Liq. plumbi	..	..	..	..	3j.
	Ol. lini	..	..	..	..	3j.
M.	Ft. lotio.	Omni die.				

All the foregoing are well-tried and old friends of good veterinary surgeons. The last named is much favoured in the south of London in ordinary cases, and the carbolic form when there is a tendency on the part of the skin to slough.

The benefit of very-much-diluted glycerine with which to bathe the inflamed parts can be scarcely credited by those who have not used it, and we know of a celebrated lotion which is composed of nothing else, but for the addition of a little liquor roseæ, with elaborate directions as to the use of rain water with it, &c. Most of our readers are aware that glycerine, to benefit a washerwoman's arm, must be very dilute, and if the public were aware of this at least three times the

present consumption would follow. The charge of the horse and the cracked hand of the scullery maid are very much alike, and to be cured by dilute glycerine and irritation by using it in the condition supplied at the shop.

As regards internal remedies. If the fever is high, doses of 15 to 30 minims of aconite (tincture), with hydras or pot. bromid. ʒss., bis die. If there is constipation, linseed mashes or tea should be ordered, but if the bowels are otherwise purgatives stronger than mag. p. fœnug., ʒj., or other spice, to induce the action. With the abatement of fever small doses of spt. æth. nit.; ʒss. of each may be given, if a ball is preferred, give ʒij. pulv. opii, ammon. carb. ʒij. ut ft. bolus, bis die. A little daily exercise should be enjoined, however stiff and unwilling the horse may be. Carrots, bran mashes, &c., in small quantities should be given to stimulate the appetite and regulate the bowels, and on returning to good coating of the liq. plumbi and oil lotio powders in the daily food will help to get the condition again. The following is a good recipe:

Sodæ chlor.	..	..	..	..	..
Pulv. fœnug.	..	..	..	..	..
Pulv. gent.	..	..	..	..	..
Pulv. ferri sulph.	..	..	..	..	..
M.	Ft. pulv.	Nocte maneque c. cibo.			

WORMS IN DOGS.

OF the varieties of tapeworm infesting dogs, the common is the *Tenia marginata*. Dr. Cobbold estimates its presence as in 25 to 30 per cent. of dogs in England, 14 per cent. Denmark, 75 per cent. Ireland. Sporting dogs, as a rule, suffer more from tapeworms than house dogs, and as the larval or cystic form of some varieties nests in the entrails of hares and rabbits, the "fifth quarter" of which often the dog's share of the spoils.

Another variety, called *Bothriocephalus*, is found in the and seaside dogs and cats suffer most from them. The dogs of Norway and Sweden, whose masters live almost entirely upon fish, are hardly ever free from this kind of tapeworm. The cat who follows the fishmonger's barrow and eats the "unconsidered trifles" during the cleaning of the frequent victim, and wastes away to a shadowy cause being, as a rule, ascertained. They are the most difficult animals to treat, and, owing to their extreme ideas of sanitation, it is often impossible to get them to medicines have acted upon them, except by the provocation to be noted afterwards.

All the tapeworm class can be ejected by pulv. areca, that agent is worthy of the faith that was at one time placed in it. If it fail, it is because the powder is old, and its "virtue." Dog-dealers and others are fully aware of this and prefer the difficult task of rubbing the powder on to ordinary nutmeg-grater.

As dogs are of all sizes, from the nude little terrier who prides himself on being able to put him in a quart to the massive St. Bernard or great Dane, one must give down a dose without some sort of sliding scale; and this Cobbold, the celebrated helminthologist of the Veterinary College, did by advising 2 grains for every pound of the dog. The practice of giving worm medicine on an empty stomach has the sanction of long practice, and remedies often take effect when given in food—a bearing in mind if the animal wears a forbidding expression and the owner is unwilling himself to run the risk. The dose should be repeated at intervals of a few days, as worms are most tenacious of life and can "broke" just as well as if entire—indeed, the tapeworm is more difficult to get rid of from all others, inasmuch as any two segments of a tapeworm can mate each other, being bisexual and capable of producing some 30,000 eggs.

Ol. filicis can very seldom be retained long enough to be effectual, but a very good pill made of the following ingredients is often used with success, and, as it is well known from what particular kind of worm a dog is suffering, it is worth while to give him a charge that will hit the

Santonine	..	..	..	gr. ij.
Pow. glass	..	..	..	gr. v.
Powdered areca	..	..	..	gr. x.
Oil of male fern	..	..	..	Sufficient to make 1
In silver leaf.				

SOME MEDICATED WINES.

By T. MABEN, F.C.S.

attention was drawn some months ago to a class of preparations which seem to be held in considerable vogue by medical men, and consequently by the public. I refer to the so-called medicated wines which pass under various names, and are compounded of such ingredients as sugar, and meat, malt, iron, quinine, and so on. One particular was very frequently prescribed, and I was led from several considerations to subject it to a somewhat close examination. From this I was led to investigate the character of a number of these wines, and this paper is the result of a partial examination of seven samples. Six of the wines contained meat, six of them malt, two iron, and one pepsine. Most of the wines had port as a basis, one of them sherry, while two were evidently mixtures of spirit and water variously coloured.

I append a table giving the specific gravity, alcoholic content, solids, &c., contained in each of the wines, together with those of a "three-shilling port" which I used for the purpose of comparison.

Specific Gravity.—It will be observed that in every case the specific gravity is high, this being accounted for by the large percentage of solid matter contained in the wines. The specific gravity and specific gravity are much higher than the figures given in the text-books; and should wine of this character be made use of in producing these medicated wines, the nature of a large proportion of their residues is at once explained. The figures may in some cases appear contradictory, but the variations may be traced to differences in the character of the residue.

Alcoholic Content.—The percentage of alcohol was estimated by Liebig's method, which, though indirect, gives results which are closely approximate to the truth, but which have a tendency to be low. It may, therefore, be assumed with confidence that these figures are under rather than over the truth, and it need excite no surprise if we find the Inland Revenue authorities stepping in, and saying that these wines are not sold without a licence. I hardly think it will be disputed that the medicinal or dietetic value of the ingredients of which the wines are composed is increased to any appreciable extent by the presence of a large proportion of alcohol; and the fact that all the wines contain from 30 to 40 per cent. of proof spirit may appear very suspicious.

Residue.—This was determined by evaporation on a water-bath at weighings at intervals of one hour gave practically constant results. The residue in most cases differed slightly in appearance from that of the port wine; the addition of saccharine matter was greater; but otherwise, in the wines made from sherry or artificially prepared, the difference was not very marked.

Analysis.—Four of the samples gave abundant evidence of the presence of meat, two of them were quite free from this substance, and another showed a doubtful trace. The influence of the addition of other substances such as some of those named in these wines is so great that we cannot afford to go into it; and, if it can be proved that the presence of tannin is incompatible with that of other constituents, we may be in search of the question at once settled very much. For example, a number of these wines are said to be prepared from Liebig's Extract of Meat, the question arises, Is this extract in whole or in part composed of tannin? It is, of course, well known that inorganic proper, such as fibrin and albumen, form compounds with tannin, and the same is the case with gelatin. But fibrin is not found in commercial preparations, and neither should gelatin be, as the latter is the constituent of flesh. According to Liebig, the ray Bentos extract contains no gelatin, yet a small amount of extract gives a copious precipitate with tannin. This is due not to gelatin, but to other organic constituents, for, as Liebig, "Extract of meat may, and does, contain tannic acid, even when entirely free from gelatin." One of the most important of the organic constituents of meat is kreatin, and it is probable that excess of tannin precipitates this body entirely. In any case, it is certain that the addition of tannin throws down a pre-

cipitate which consists of from 15 to 20 per cent. of the extract. Since extract of meat contains nearly 20 per cent. of water, and about the same proportion of mineral matter, it is obvious that one-third of the organic matter is altogether lost, and that, too, the most valuable part of the extract, as it will in all probability consist of the nitrogenous constituents that may be present. Even if only 1 per cent. of extract of meat be added to port wine, a copious deposit takes place, which proves that a large proportion of the organic matter in meat extract cannot, if tannin be present, be held in solution, even if the wine to which it is added exist in this relatively large proportion.

It was thought that these facts might furnish a guide for detecting the presence or absence of extract of meat in the samples under examination; but while the further fact that samples 1, 2, 4, and 7 contained a considerable quantity of tannin was sufficient evidence to my mind that there was present in them none of the constituents of meat precipitable by tannin, it by no means proved that meat extract had not been added. All the samples were tested with tannin solution, with the result that Nos. 3, 5, and 6 gave copious precipitates, while the others gave no precipitate; conversely, all the samples were tested with meat solution, with the result that samples 1, 2, 4, and 7 gave dense precipitates, and Nos. 3, 5, and 6 were unchanged. Notwithstanding this, it is perfectly possible that extract of meat had been added to all the wines, and that in some cases, through the ignorance of the manufacturer of the reactions that took place, some of the most valuable constituents had been thrown down, and left as a worthless deposit—as, indeed, it was—when the wine was sufficiently clear for bottling purposes. These results, therefore, being of no value for quantitative purposes, recourse was had to another method.

Potassic Chloride.—The mineral constituents of meat consist for the most part of phosphate and chloride of potassium, together with other salts in smaller proportion. Liebig's extract of meat contains about 20 per cent. of mineral matter, and the sample with which I have been working gave 7.6 per cent. of potassium chloride. If we can be certain that no hydrochloric acid has been added in order to dissolve quinine, or for any other purpose, we have here a readily available means for ascertaining the quantity of extract of meat that has been added to any sample. I have not attempted to separate or estimate the free acid, but I assume throughout that all the chlorine is derived from meat. This assumption is obviously most favourable to the wine, as it gives us the maximum amount that can by any possibility be present. The chlorine was estimated volumetrically with decinormal silver nitrate, using potassic chromate as an indicator. The red colour of the wines, in some cases, obscured the end reaction, so recourse was had to decolourisation with animal charcoal. The mean of three estimations has been taken throughout.

Extract of Meat.—From these data, therefore, I estimate the quantity of meat, or of meat extract, that has been added to the wine. In some cases a proportion of the organic constituents has undoubtedly been lost; the figures in the table represent the quantity that was originally present. Samples 1, 2, and 4 are all made by one manufacturer; they are the same, except that No. 4 is said to contain iron. Nos. 1 and 4 were obtained through the ordinary trade channels, No. 2 was a sample sent to a medical man. The analytical results indicate that the wines are very uniformly prepared, the variations being extremely small. Sample No. 4 does not contain a trace of iron, and is, in my opinion, in every way identical with Nos. 1 and 2. These three samples contain the remnants, so to speak, of 1 per cent. of extract of meat, and on the average each ounce of the wines contains rather less than 2 grains of the soluble organic matter in meat; not a very brilliant achievement certainly! Nos. 3, 6, and 7 gave rather better results, but even in these the quantity of meat is so insignificant that it can be of very little value under any circumstances. No. 5 is a much more satisfactory preparation. According to the label every ounce contains the soluble constituents of 875 grains of beef. If we assume that 34 lbs. of beef give 1 lb. of extract, which is the proportion given by Liebig, my figures indicate that every fluid ounce of the wine represents 866 grains of meat, a difference of only about 1 per cent. Judging from the appearance of the residue, and the percentage and character of the ash, I am quite disposed to believe that the statement on the

label, in so far as it relates to the beef, is substantially correct.

Extract of Malt.—The same line of argument adopted in regard to the influence of tannin on extract of meat may be employed in reference to its action on extract of malt. The value of the latter preparation depends very largely on its proteolytic power; in other words, on the proportion of active diastase which it contains. If a solution of malt extract in water be treated with excess of tannin, a whitish gelatinous precipitate is thrown down, and the presumption is that the deposit consists of the nitrogenous elements in the malt combined with tannin. If this deposit be separated by filtration, and the filtrate tested with starch and iodine, some indication ought to be given whether or not the malt is changed for the worse. A solution of malt extract was thus treated, and a portion of the filtrate was tested alongside a similar portion of the solution under identical conditions. It was found that the solution of malt had entirely changed the starch within half an hour, while the starch iodide reaction was unaltered at the end of three hours in the case of the filtrate from the tannin-malt solution, showing the entire absence of diastatic power in the latter. From this I infer that wines containing tannin, such as port and sherry, are utterly unsuitable as vehicles for the administration of malt extract; and if malt extract has been added to samples 1, 2, 4, and 7, as from the appearance of the residue I have no doubt it has, it is now in such a condition as to be worthless, in so far as its proteolytic or diastatic power is concerned.

Iron.—Samples 4 and 5 are said, according to the label, to contain iron. No. 4 contains not a trace, and No. 5 contains a trace, but so small that it could not be estimated. Each $\frac{1}{2}$ oz. is said to contain a grain of iron, but I am within the mark when I say that the entire bottle does not contain half a grain altogether.

Quinine.—Samples 5 and 6 contain quinine obtained from No. 5 being very nearly what it is said to contain, viz. half a grain to the ounce.

The conclusions to which I have come regarding these wines are sufficiently indicated throughout these remarks, but I wish specially to emphasise the fact that the samples contain an altogether unnecessary quantity of alcohol, which it is feared, may for many patients prove a hindrance. I have satisfied myself that this is unnecessary, as wine much stronger in meat even than No. 5 may be satisfactorily prepared without such a large percentage of alcohol. With regard to the other wines, their medicinal value is so small—the organic constituents of the wine ranging, at the very outside, from 2 to 4 grains per fluid oz. that it is difficult to understand their real value. The majority of the samples are prepared in such manner that whatever virtue they might possess is a sadly diminished quantity.

All the wines contain meat; all except No. 1 contain malt; Nos. 4 and 5 are said to contain iron; Nos. 5 and 6 contain quinine; and No. 7, pepsine.

Sample No.	Specific Gravity	Absolute Alcohol by Vol. per cent.	Total Solids, per cent.	Chlorine as Chloride of Potassium, per cent.	Extract of Meat, per cent.	One Fluid Ounce of Wine contains of Meat Extractive and Salts, in grains	Tannin	Iron	Quinine, per cent.
1	1.024	15.49	12.69	.029	1.17	4.17	abundant	—	—
2	1.024	15.12	12.68	.060	1.05	3.75	..	—	—
3	1.023	19.13	13.66	.113	1.55	5.55	trace?	—	—
4	1.024	15.49	12.40	.083	1.09	3.9	abundant	none	—
5	1.014	19.45	10.45	.438	5.76	20.41	none	trace	0.1
6	1.008	15.77	8.43	.193	2.54	8.51	..	—	0.2
7	1.016	15.53	10.02	.134	1.76	6.15	abundant	—	—
Port	1.004	19.63	8.16	—	—	—	..	—	—



AND

Literary Notes.

A Manual of Organic Materia Medica. By John M. Maisch, Ph.D. Philadelphia: Lea Brothers. Third Edition. 12mo. pp. xvi + 532.

AMONGST the manuals of the materia medica of the vegetable and animal kingdoms written in the English language, this one by Dr. Maisch is in certain respects unique. It is essentially a student's manual, giving simple and brief details of the origin, habitats, characters, constituents, and properties of the various drugs, and it has what text-books, as a rule, have not—viz. excellent engravings of the histological structure of nearly 300 drugs. The arrangement of the volume is unusual, and is based partly on the origin and partly on the histological character of the substances. Thus, Part I. includes all animal drugs; Part II. treats of cellular vegetable drugs; and Part III. of drugs without cellular structure. The subdivisions of Part II. illustrate the system of study. It is divided into twelve groups, eleven of which relate to drugs which are distinct

organs of plants, the twelfth comprising such as ergot. The manner in which each drug is treated is exceedingly precise, there being no attempt to burden the student with facts or details which are not of benefit to him, or which may be difficult of assimilation at the stage of mental development which precedes graduation. The book is one which we can recommend, and it adapted to the British Pharmacopoeia would be welcomed in this country.

The Chemistry of the Coal-tar Colours. Translated from the German of Dr. R. Benedikt, and edited by Ph.D. London: George Bell & Sons. Pp. 385.

THIS is one of a series of technological handbooks, and it deals with a subject the importance of which to the manufacturing industries of this country cannot be overestimated. The book is intended as an elementary manual or in the larger text-books, which hitherto have been undisputed, and it treats of the manufacture, uses of artificial dye-stuffs, showing how they are related to each other, the changes which they undergo in course of manufacture, and their more common and chemical properties. While the scientific subject is all that could be desired in such a work, the reader is the fact that it contains all information regarding the trade names of the various colouring matters, their uses, and precautions to be observed in dyeing them.

Trade Report.

to Retailers:—It should be remembered that the quotations in this section are the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., March 15

Drug and chemical markets are almost stagnant, and the alterations in the position of such articles as have undergone a range only of a minor character. As regards opium, higher prices for opium are wired from Smyrna, but our own market has not responded. Tuesday's cinchona prices resided in a slight advance, and quinine is also dearer. There are signs of some sort of a rally in the quotations for cod-liver oil. Calabar beans are dearer, and a considerable advance is reported in Guinea grains. Essential oils of lavender (French) and otto of rose are dearer, and civet is said to be scarce. At to-day's gum market, gamboge sold generally at higher rates, and Madagascari animal ought very high rates. There is some improvement in range shellac, and the tea market exhibits considerable firmness. As regards chemicals, bleaching powder and soda are dearer. On the other side of the balance sheet, we have to record a fall in the price of citric tartaric acid, low rates for quicksilver and mercurials, as well as for iodate of potash, caustic soda, soda crystals, soda of tart, and sulphate of ammonia. Camphor and naphthalene are rather easier. From Sicily we hear that oils of lemon and citron are obtainable at a fraction less money. Prices are generally dull and lower, notably, cloves, ginger, Singapore black pepper. Linseed and olive oils show weakness, and at to-day's auctions lower figures were secured for Ad sorts and Egyptian amara arabics. Button and black amber have slightly declined.

THE SHARE IN THE LONDON PRODUCE CLEARING-HOUSE are being briskly dealt in in the market. Last week the premium obtainable declined to 3*l.* per share, but since it has again advanced, the closing quotations on Wednesday being 4*l.* to 4*l.* 5*s.* premium, as against 4*l.* 12*s.* 6*d.* to 17*s.* 6*d.* on Tuesday.

THE PRODUCE CLEARING-HOUSE.—The idea of a rival clearing-house as not, so far as we can learn, assumed a substantial character since last week. Meanwhile, expectations run rather higher again with regard to the existing company. We were told that one of the 100 founders' shares, of the nominal value of 10*l.*, was sold on Tuesday for the price of 25*l.*, another one having changed hands a few days earlier for 750*l.* The explanation of this apparently extravagant figure is that one-fourth of the profits, exceeding 10 per cent., is divided among the holders of the 100 founders' shares, so that by opposing the net profit for the year to be 100,000*l.*, at the rate of 20 per cent., holders of ordinary 10*l.* shares would receive a fraction over 33*s.* interest, those of the founders' shares of equal nominal value would obtain 3*l.* 12*s.*, or 1,756 per cent.

THE DIRECTORS OF THE CHEMISCHE FABRIK AUF EISEN in Berlin, better known here as Schering's Works, have decided to pay a dividend of 24 per cent. for the year 1887, the net profit being 872,580*m.*, or 43,629*l.* The company's turnover during the year 1887 was considerably in excess of the previous year's, and, according to appearances, further progress will be made in 1888. Several new preparations have recently been added to the list of the firm's products; but the contemplated manufacture of aluminium has been abandoned for the present.

THE BRAZILIAN DRUG TRADE.—The value of the imports of chemicals into Rio de Janeiro during the financial year

1886-87 is declared at 2,278,962 milreis, of which 554,650*m.* came from the United Kingdom, and 418,712*m.* from Germany. In 1885-86 the figures were 2,375,617*m.* (United Kingdom 549,862*m.*, Germany 408,782*m.*) Of articles of pharmaceutical interest the imports are given as follows:—

	1885-6	1886-7
Seeds and plants Ms.	2,123,727	2,072,997
From United Kingdom	608,888	407,094
" Germany	291,204	344,244
Perfumery, dyes, &c.	2,913,603	3,080,795
From United Kingdom	563,368	519,678
" Germany	198,104	183,492

RUSSIAN CUSTOMS REGULATIONS.—Complaints are constantly received by the British Ambassador at St. Petersburg from commercial bodies in England of the infliction of heavy fines by the Russian Customs authorities, and it is now pointed out that in many cases fines incurred in accordance with the strict letter of the Russian Customs regulations are not enforced, but that, nevertheless, the exporter is charged in the account by dishonest clearing agents as though the fine had really been exacted. It is therefore advisable that in all cases agents should be called upon to produce the official receipts for fines stated by them to have been paid.

THE BORAX COMPANY.—At a general meeting of the shareholders of the Borax Company, held in London on March 8, it was stated that the company has purchased the right of working for fifty years two mines in Asia Minor containing boracite, from which borax, boracic acid, &c., are manufactured. It has also purchased a factory near Paris, which is capable of turning out the full quantity of borax products for which a market can be found. The two mines are expected when in full working order to yield 9,000 tons of boracite per year.

EXPORT DUTY ON SOUTH AMERICAN CINCHONA.—It is said that from May 1 an export duty equal to 3*d.* per lb. will be levied on all cinchona bark exported from Bolivia. The report requires confirmation, as it does not seem likely that either the Bolivian or the Chilean Government (for probably the duty applies to barks shipped by Chilean ports) would impose a duty which will seriously interfere with the rising industry of cinchona planting in Bolivia.

GAMBLING IN QUININE.—Owing very likely to the speculative spirit fostered by the foundation of the new Clearing House, one or two well-known dealers in quinine are endeavouring to extend to that article the system of "option" dealing which has already been tried, with some apparent success in quicksilver and a few other articles. The "system," which differs in no distinguishable measure from a lottery, is worked as follows: The seller offers quinine on the basis of fair commercial quality for delivery at a stated future period. The buyer pays 1*d.* per oz. down, and if quinine, when the period of delivery arrives, has fallen in value, he merely forfeits his penny; but if, on the other hand, it has become dearer, he either receives quinine at the price contracted for or the difference between the contract price and the market value at the period of delivery. The seller has the option of delivering any one of four German brands, which we understand to be those of the Frankfurt, Auerbach, Stuttgart, or Brunswick factories. We have not heard that any considerable business has been done in this way up to the present.

ACID (CITRIC) extremely quiet and rather lower, say 1*s.* 6½*d.* to 1*s.* 6½*d.* per lb. There is next to nothing doing in this article.

ACID (OXALIC).—In fairly steady demand at 3½*d.* to 3¾*d.* per lb. *Sal acetos* quiet and neglected at 5½*d.* to 5¾*d.*

ACID (TARTARIC).—We hear that one of the *English* makers has sold this week at the rate of 1*s.* 6½*d.* per lb.,

which would mark a decline. We have not been able to verify this statement, but it is certain that such an offer was made. *Foreign acid flat*, at 1s. 6½d. to 1s. 6¾d. per lb. nominally, but it is said that a holder this week tried to sell 20 cwt. at 1s. 6d. and could not find a buyer.

ACIDS (VARIOUS).—The following are the current quotations for some of the principal acids used in pharmacy:—*Acetic*, B.P., 24s. per cwt.; ditto, glacial, 9d. per lb.; *benzoic*, ex resina, 5½d. per lb.; *carbolic*, B.P., 1s. 8d. per lb. in bottles; *gallic*, 3s. 6d. per lb.; *nitric*, commercial, 1,360, 28s. per cwt.; B.P. 1,420, 38s. per cwt.; *pyrogallie* (English), 1s. 9d. per oz.; pure *sulphuric*, B.P., 2½d. per lb.

AMMONIA SALTS.—*Carbonate* neglected at 4d. per lb. less a heavy discount. *Salammoniac* remains at 34s. for first and 32s. for second quality. *Sulphate* has experienced a good many variations, and closes dull and slightly lower. London 24 p.c. grey, 12l. 5s., at which some small business is reported. Beckton sulphate, nominally, 12l. 12s. 6d. Hull, spot, 12l. per ton, and Leith also 12l. per ton.

ANISE quiet, although there is still a fair demand. *Russian* seed is obtainable at from 19s. to 22s. per cwt., according to quality; *Italian*, at 40s.; and *Spanish*, at 44s. or 45s. for ordinary qualities, although fine *Alicante* seed is worth as much as 52s. per cwt.

ARGOL.—A shipment of 106 bags *Cape argol* was bought in at Tuesday's auctions at 75s. to 82s. per cwt., according to quality; but two bags, rather ordinary dark red, sold at 66s. per cwt.

ARSENIC is now in somewhat better supply, and may again be bought on the spot at 11s. 6d. per cwt. for white powder in barrels.

BLEACHING POWDER is rather dearer, being in very limited supply just at present. On our market, 8l. 10s. to 8l. 15s. is the ruling quotation, while the Tyne prices have advanced to 7l. 8s. 9d. to 7l. 10s. per ton.

BORAX.—There is nothing new to report just yet. The price of *English* refined borax still remains at 30s. to 32s. per cwt., according to brand.

CALABAR BEANS have further advanced at Liverpool, with sales up to 8d. per lb.

CAMPHOR.—Our imports of *crude* Japanese camphor are still rather heavy, and very little business is being done. For arrival there is a good deal of pressure to sell, but purchasers are holding off. Japan camphor on the spot is nominally quoted at 77s. 6d. per cwt., but less would probably be accepted. The English manufacturers of *refined* camphor have recently reduced their quotations, and now offer bells (in 10 cwt. lots) at 1s. 1½d. per lb.; in smaller wholesale quantities at 1s. 2d. per lb. Flowers are quoted at 1s. to 1s. 1½d.; and tablets, according to size, at 1s. 2½d. to 1s. 7d. per lb. Foreign refined camphor is offering at a fraction below these prices.

CANARY SEED.—There is no change of any great importance in the position of our market. *Dutch* canary seed moves off steadily at 43s. 6d. to 48s., according to quality. *Spanish* seed quiet for common and medium grades, for which from 49s. to 54s. is required; but very fine seed is rare, and firmly held up to 58s. per cwt. The arrivals of *Turkish* seed being rather plentiful, only lower prices could lead to business of any importance; but holders do not seem very anxious to realise, and hold at 45s. to 47s.

CARAWAY SEED.—Still declining. *Russian* is nominally held at 20s. to 21s. per cwt., but owners would very likely make concessions. *Morocco* seed, 21s. to 22s., and *Dutch*, 24s. 6d. to 26s. per cwt. The cultivation of caraway seed in Germany is assuming considerable proportions, notwithstanding the Germans find it difficult to compete even on their own markets with Dutch and Norwegian caraways. The German variety rarely yields over 4 per cent. essential oil, while the Dutch contains from 5½ to 6 per cent., and also yields a finer quality of oil. It is thought that the humidity of the soil in Holland favours the growth of the caraway plant. As regards quality, Dutch caraways are the best, then follow German raised from Dutch seed, German from native seed, and, finally, Russian. At the spice auctions 120 bags *Dutch* seed sold at 24s. 6d. per cwt.

CHAMOMILES.—The feeling in the market has again become quiet, but prices are unaltered.

CHAMOMILES (GERMAN).—The coolness of the last spring damaged the crop of flowers. We have collected only a trifle of first-class chamomiles, and these were sold quickly at advancing prices. The quality there has been a large crop, and for some time received cheap offers, so that dealers could not hold. In consideration of the scarcity of the first quality, druggists were compelled to buy seconds, which are held at 4 p. cwt.

CINCHONA.—The supplies offered on Tuesday were very light, being composed of about 1,850 packages of American, 950 Ceylon, and East Indian, and 54 Java. There was a very good competition, and most of the usual buyers secured a fair proportion of the lots, though the agents for the Mannheim quinine were bought the largest quantity. The unit is generally placed at 2½d., and the average increase in value at 5 per cent. Very little bark of Eastern growth was bought in, and the demand for American barks was also better. It should be noted that Indian cinchonas have been arriving here more freely during the present year than any former period. The Ceylon shipments, so cablegram from Colombo say, are still decreasing. The following prices were paid: **SOUTH AMERICAN BARK:** *Ledgeriana*, from the Bolivian plantations, newly imported, fair to fine bark, 8d. to 1s. 1d. per lb. *Columbian*, soft and woody, 3d. to 3½d. per lb. *New Granada*, 2½d. to 3½d. per lb. *Cuprea*, which always was offered, was all bought in; but it is said that this bark finds a good sale privately. **CLON BARK:** *Succirubra*, natural branch young to fairly good, ½d. to 2d. chips, young mixed to good, 2d. to 6½d.; spoke shavings, common mixed, 2½d. to 3d.; fair to good, 4d. to 7d. not dull, well to fine, 2d. to 9½d.; renewed, ordinary, 2½d.; lithium to fine shavings, 4d. to 10d. *Officinalis*, branch, 2d. mixed chips, 3½d. to 4½d.; spoke shavings, 4½d. to 6d.; root, 3½d. to 11d. renewed, common to fine mixed with shavings, 6d. to 10d. *Hybrid*, &c., chips, 2½d. to 5½d.; root, 7½d.; renewed, 4½d. **EAST INDIAN BARK:** *Succirubra* (Wynaad and Mysore), chips, common to fine bright, 2½d. to 6d.; spoke shavings, 4d. to 6d.; root, 2d. to 4½d.; renewed, common to fine, good, 3d. to 8½d.; very fine shavings, 11d. *Officinalis* (Neilgherry), chips, young and quilly mixed, 4d. to 5½d. shavings, 3d.; renewed ditto, fine milled, 5d. to 6d.; mosses, 8½d.; *Robusta*, branch, 3d.; renewed, 6½d.; root, 8d. **JAVA BARK:** *Ledger* branch, 2½d.; bold ditto, 4½d. chips, quilly common, 3½d. to 6½d.; good to fine bright root, 8½d. to 12d. root, 9½d. to 11d. *Succirubra*, quill, bold and lustrous, slightly damaged, 9d. to 9½d. per lb. It is a fact worth noting that the proportion of direct shipment of cinchona from Java to England as compared with the exports from the island to Holland has decreased during 1886 probably on account of the greater facilities which are given for storing bark at Amsterdam as compared to a couple of years ago, and the system of publishing the analysis of bark prevails at that port. The following, according to the official statistics, were the shipments of Java cinchona from private plantations during the first ten months of 1887:—

	1885	1886	1887
Holland kilos.	302,789	499,828	696,477
England "	77,786	175,060	182,563
Other countries "	530	—	1,800
Total "	381,105	664,918	880,840

The direct importation of cinchona bark from Germany has been much facilitated by the establishment of the subsidised steamship lines. On February 1, 1887, the North German Lloyd steamer *Salier* called at Bremen for the first time, and brought away direct bark (121,650 lbs.) and for Antwerp (121,650 lbs.). The shipments of cultivated Calisaya bark from the plantations are increasing. In 1885 only 2½ c. came to London from this source; in 1886, 3 c.; in 1887, 7,190, averaging between 4 and 5 per cent. sulphate. The reports concerning cinchona plantations in the Caucasus, which obtained currency a few years ago, are devoid of foundation.

CIVET is said to be very scarce here, the best being in the hands of a few holders only, who ask high prices, up to 12s. per oz., it is reported, for the best.

CREAM OF TARTAR has been steadily declining since last

, and closes at 122s. for first white, and 120s. per cwt. quality.

—The new Java crop is said to have yielded from 40 piculs (1 picul = 133½ lbs.).

—There is but little available of good *Malta* and *Os.* would have to be paid, perhaps slightly more than *East Indian* cumin may be had at 36s. to per ct.

—Our supplies of *Mogadore* seed are to be almost at an end, the nominal quotation remaining 8s. 9s. per cwt. New *Egyptian* seed finds a ready market at 6s. to 7s. per cwt.

At the auctions on Tuesday a parcel of 105 cases of new import was shown, but bought in at nominal rates. *Shanghai* (38 cases) at 57s., and *Amrad* (cases) all country damaged at 55s. per cwt., but cases of the latter, badly damaged, which sold at 50s. per cwt. The galls continue to arrive on a liberal scale, and there is very little business doing, although persons are less inclined to part at the bottom figures than last week. From 57s. to 60s. 6d. per cwt. may be considered the nearest quotation, while *Japanese* galls are in demand at 55s. to 55s. 6d. per cwt.

—There being sellers of *Amrad* for private sale, there being sellers of *Amrad* for private sale at 22s. per cwt., whereas a few days ago they asked 22s. 3d. per cwt. There is no demand for *Amrad* at present.

—There is no alteration in the quotations, *Amrad* still asking 75s. per ton for double distilled, s.g. 1.0, with a quiet market. Should the American customs duty of 5 cents per lb. on distilled, and 2 cents per lb. on the glycerine be removed, it is thought likely that some alteration will take place in the quotations here, for hitherto Americans have bought crude glycerine and refined it in this country, the cost of refining being less than the difference between the cost of the crude and the refined. If the duty is removed, it is thought likely that some alteration will take place in the quotations here, for hitherto Americans have bought crude glycerine and refined it in this country, the cost of refining being less than the difference between the cost of the crude and the refined. If the duty is removed, it is thought likely that some alteration will take place in the quotations here, for hitherto Americans have bought crude glycerine and refined it in this country, the cost of refining being less than the difference between the cost of the crude and the refined.

—The arrivals from the West Coast have been rather restricted lately, and this has encouraged holders to stand out for better prices. Up to 30s. per cwt. is now asked. The *Hamburg* market is stated to have been cleared of *Amrad* purchases. Twenty bags were bought in at 30s. per cwt. at the auctions, more than would be obtainable, notwithstanding the momentary scarcity of the article.

—*Madagascar* is in very good demand, and at high rates, yellow sorts, 7l. 15s. to 7l. 17s. 6d.; common to faded, 87s. 6d. to 5l. 10s.; pea and bean dull-red to pale, 8s. to 6l. 15s.; peas, 58s. to 67s. per cwt. *Zanzibar* is neglected, and only a few lots sold at 8l. 2s. 6d. to 5s.

—About 2,000 packages, three-fourths of which were imported from India, came up for sale at to-day's auction, only about 600 packages (mostly offered "with reserve") found buyers at irregular rates, *Egyptian Amrad* being mostly lower. *Bombay Amrad* fairly steady, though much inquired for. *Ghattay* firm, and occasionally higher; *Aden* sorts about 8s. lower. For *East Indian* the following prices were paid: *Ghattay*, fairly good, 64s. 6d.; brown and rather ordinary, 62s. 6d.; ordinary, common, 47s. 6d. down to 40s. 6d.; pickings, 30s. and woody, 30s. to 20s.; fair to low siftings, 15s. to 10s. 6d.; *Madras*, dark and blocky, 44s.; *Amrad*, very good, 69s.; dull and dark, 45s.; *Oomra*, glassy, 54s. 6d.; fine frosty amber and pale, 6l. 2s. 6d. per cwt. *Fair* good *Aden* sorts sold at 6l. to 6l. 2s. 6d. per cwt.; *Mogadore Amrad* at 85s. to 86s. *Egyptian Amrad*, exceptional fine selected frosty pale, 12l. 5s.; bold red, 15s.; and small yellow, 92s. 6d.; fair but dusty and drossy low down, 63s. to 31s. per cwt. *Cape* fair small brownish glass 65s.; dull and darkish to common, 45s. to 25s. *Amrad* and *Australian* gums bought in, the latter at 85s. per cwt. In *Liverpool* all varieties of gum arabic

are in fair request, but with the exception of *Brazilian* gum the business is small, owing to the limited supplies available. For a little parcel of *Turkey sorts* 15l. per cwt. has been paid, and 6l. 8s. 9d. for 12 serons fair *Egyptian Amrad*. 180 bags *Brazilian* gum have found buyers, at 46s. to 47s. 6d. per cwt. for rather blocky, and 50s. to 55s. per cwt. for dark to fairly light free quality. Another shipment of 609 packages of this gum has arrived, and this has caused owners to relax their limit a little. The gum continues to be in good demand, both for the home trade and for export. In *Bordeaux* a parcel of 50 bags *Senegal* gum of very fine quality is said to have changed hands at 360f. per 100 kilos, equal to 144s. per cwt. Detailed reports concerning the crop are shortly expected from the *Senegal*. We hear from *Cairo* that at the beginning of the present month a small parcel of about 30 cwt. of fair but yellowish and not sand-free *Turkey sorts* was landed there, and sold at once on the basis of 16l. 16s. f.o.b. *Alexandria*. The last of the *Cairo* stock of *Gehzirah* gums, 31 serons, has also been sold at the parity of 5l. 6s. per cwt. f.o.b. *Alexandria*. In *Red Sea* gums the *Cairo* market was very brisk, and considerable transactions at rising prices, from 70s. to 140s. f.o.b. *Alexandria* being quoted according to quality. It is asserted that speculators in *Trieste* and *Bordeaux* are trying to depress the market for *Senegal* gums, in order to buy at low rates; but it is doubtful whether this manoeuvre will succeed. The new *Senegal* crop generally arrives at *Bordeaux* at the end of February; but this year, owing to the floods which have delayed the collecting of gum, it is expected to be quite a month late.

GUM BENJAMIN.—Not improbably a further fall in prices may take place, for at the end of last week 259 cases arrived from *Singapore* in a single shipment.

GUM KOWRIE neglected, and fully 3s. lower for medium and ordinary qualities. Very fine pale transparent sold at 9l., fair to good amber three-fourths scraped, 66s. to 88s.

GUM OLIBANUM in good supply, but only about 150 packages out of over 800 offered were sold at unaltered rates, fair pale to good bold drop, 42s. 6d. to 51s.; pickings, ordinary woody to fine, 12s. to 18s.; siftings, 11s. 6d. to 12s.

INSECT FLOWERS.—The quotations may be called unchanged, although perhaps a trifle below the last quotations of 208s. for open, 217s. for half-closed, and 227s. for closed flowers (c.i.f. terms), might be accepted. The *Trieste* stock has been reduced within a month from 61 to 48 tons.

IODINE unchanged at 9d. per oz. for crude and 10d. for resublimed. *Potassium iodide* quiet at 11s. 3d. per lb.

LINSEED quiet and slightly easier for *East Indian*. The quotations now are: *Dutch*, 45s. per 416 lbs.; *Bessarabian*, good to fine, 39s. to 41s.; *Calcutta*, 37s. 3d. to 40s. per 410 lbs., according to quality.

MERCURIALS.—Although prices are far from stable we give the latest quotations, which, however, may perhaps prove from 1d. to 2d. per lb. above those at which manufacturers would now be willing to sell. *Calomel*, 3s. 4d. per lb.; *Corrosive sublimate*, 2s. 8d.; *Red precipitate*, 3s. 7d.; *White ditto*, 3s. 6d.; *Mercurial ointment*, 2s. 4d.; *Blue pill*, 2s. 6d.; *Mercury, cum creta*, 1s. 4d. per lb.

MORPHIA.—Still held at from 5s. 9d. to 6s. per oz. by the makers.

MUSK.—Our imports since last week have been as follows:—Per *Agamemnon*, from *Shanghai*, 3 cases; per *Valetta*, via *Colombo*, 3 packages.

MUSTARD SEED quiet and without improvement. *English* white, 8s. to 10s.; *Foreign*, 5s. to 7s. per bushel.

NUTMEGS.—Our market remains very dull, and although only a small quantity was offered for sale, the better lots could not find purchasers at the prices demanded. Of 39 packages 25 were disposed of, small wormy *Singapore* at 7d. to 8d. per lb., fair *West India* (97) at 1s. 9d., ditto in shell (71 to 73) at 1s. 1d. per lb. *Penangs* bought in at nominal rates. At the end of last week our stock of nutmegs in first hand reached 4,173 packages, against 1,846 packages at the corresponding date of 1887. This is a slight decrease on our stock at the beginning of the year. The island of *Banda* (one of the *Molucca* group, north-east of *Java*) was visited by storms of great violence on January 1 and 10. The island is the centre of the nutmeg production, and large numbers of trees have

quality were sold; fair plump medium (B) cut, 6d. tips and cuttings, 20s. 6d. down to 16s. Of 227 new Jamaica about one-third sold, small to medium shed not of good appearance, 51s. to 61s.; ordinary 44s. to 46s. per cwt. First-class damaged Bengal at 6d., and limes Japan at 16s. per cwt. Our stock of Cooch and Malabar ginger is very heavy, but that of other varieties has been much reduced. *Mace* slightly easier, and of 1s. Penang pickings, 2s. to 2s. 1d.; common thin *pepper*, 2s. per lb. *Black pepper* dull, and lower. Holders of *pepper* especially seem more anxious to sell. Of 2,098 bags offered at auction, 311 sold at 7½d. to 7¾d. for fair quality good Singapore, and 7d. to 7½d. for good heavy *pepper* Cst Penang. For arrival lower rates have been offered viz. 7½d. for 70 tons Singapore, March-April shipment. *White pepper* quiet, with small sales of Penang at 1s. per lb. *Pimento* neglected. Of 1,143 bags, only about 200 sold at 2d. to 2½d. per lb. for common to fair dusty.

China tea our market for Congous shows a distinctly better tendency all round. Tuesday's sales of 22,629 bags were heavier than has been usual lately, but the sales were readily taken by the trade, and only common *tea* and Shantam sold up to 3½d., against 3¼d. not long since. Useful Kaisow siftings fetch from 3d. to 4d., with very common old at 2½d. Scented capers are ready, with finer grades firmer, but Canton SO Pekoes are wanted, and only saleable at a reduction. *Assams* keep firm. Broken Pekoes and Pekin Souchongs show a further falling, but fair and good qualities are much wanted and well competed for. Leaf tea for price is also wanted, and fetching 7½d. are very poor in liquor. *Ceylons* continue plentiful, but are all wanted, and rates are maintained, decline in prices in the earlier part of the year having stimulated consumption.

CHEMICALS IN THE NORTH OF ENGLAND.

The chemical trade generally is in a state of depression, caused partly by the fear of political complications, and partly by peculiar and special features, which are gradually bringing about great and important changes. The history of the trade is the history of a revolution, and the present period is one of its most acute phases. There is scarcely a chemical which is not more or less affected. The alkalies are all suffering from new and active causes. Soda ash—formerly the ruling chemical of this class, in the earlier history of the trade—is now to a great extent replaced by caustic soda; the manufacture of caustic soda, again, is changing, and at 60 per cent. white growing almost obsolete, and the quantities being now turned out weekly of 74, 76, and 78 per cent.

LEAD-POWDER, in consequence of a combination amongst makers to reduce the output, is the one chemical which has doubled its value, but certain experiments are being made on the Continent which, if successful, will materially affect the future of this article.

BORAX—The market has been peculiarly affected, in consequence of the advance in values made by the Californian miners, and as their manufacture can be imported into the United States free of duty, whilst English borax pays 14½ tons duty, the singular result has followed that Californian borax is actually 1½ per ton dearer than English borax, the Americans finding it cheaper to buy in Europe than to import from San Francisco—a condition of things not in the trade. The manufacture of borax is no longer confined to England and France, the Germans being large makers; France is increasing her output, and, in place of selling all her boracic acid, converts a considerable quantity of it into borax, which is also sent to market, and with any important advance in prices, we should again have East Indian borax made from tincal, and Indian borate of lime.

GERMAN VEGETABLE DRUGS.

CORRESPONDENT in Thuringia sends us the following note on the present position of some of the principal herbs cultivated in that locality.

JUNIPER BERRIES.—The last crop turned out much inferior to the preceding one, and in Thuringia we have collected only a small quantity. Stocks cannot, of course, increase before the next crop; on the contrary, they diminish more and more, and prices are pretty certain to rise.

CANTHARIDES.—The last Russian crop has been insignificant, and in the beginning of the season 15m. per kilo. (6s. 8d. per lb.) was asked and paid, but the Hungarians collected large quantities and sold them to the druggists at full prices, owing to the firm tendency of the Russian owners. Unfortunately foreign orders have failed, dealers are without inquiries, and the article might at present be easily procured at 10½m. to 11m. per kilo. (4s. 5d. to 5s. per lb.). Holders of cantharides are making a bad bargain, just as last year.

MARSHMALLOW FLOWERS.—The crop was so plentiful as to cause a decline of 90 to 100 per cent. in the value. In January, 1887, the article was quoted at 122s. to 132s. per cwt.; nevertheless the demand was brisk. At present flowers without cups are in the market at 80s. to 90s. This is a price which leaves no profit to the grower, but for all that, there are no sales of any importance. Flowers with cups are more in demand, and have a firmer tendency, although they have lost in price and quote to-day at 50s. to 54s. per cwt.

POPPY FLOWERS.—The abundant harvest of last year has removed the scarcity of this article, which generally was strongly felt every recurring spring. At present there are pretty large lots in the market, which are offered at moderate prices. Druggists can purchase first quality at 120s. to 125s. per cwt., and seconds at 93s. to 98s.

HERB FARFARÉ IN FOLIIS.—The dry weather of last summer brought in a large and beautiful crop, and prices remain still 12s. 6d. to 15s. per cwt. The same holds good of **WALNUT LEAVES** and of **MOTHER OF THYME**, which are obtainable at advantageous prices.

SWEET MILFOIL (HERB MAJORAN).—At the beginning of last year's harvest growers expected a poor yield, and quoted from 27s. 6d. to 32s. 6d. per cwt. This price kept up well for a long period, and druggists were forced to pay it because of the steady demand. Afterwards it became clear that the crop was not nearly so poor as had been expected, and this caused a stagnation which influenced the growers to bring stocks in the market. Large orders failed, the article became neglected, and it can now be purchased in quantities at 22s. 6d. to 25s. per cwt.

HERB. MENTH. CRISP. yielded a splendid harvest, but prices still continued at 50s. to 60s. for leaves and 30s. to 35s. for the cut herb, because a large quantity is used for making essential oil of spearmint, for which 16s. to 17s. 6d. per lb. is paid willingly.

ANGELICA ROOT.—The cultivation of this root last year was a limited one, and the article advanced a little, to 12s. 6d. or 13s. per cwt., but still it does not pay the grower. The decline in price during the last years is principally the result of the over-production.

ELECAMPANE ROOT.—We have had a good crop, and the article is in the market at last year's quotation of 12s. 6d. to 13s. per cwt. for ordinary root. The supply of cleaned root is small, because the low prices do not pay cleaning.

RAD. LEVISTIC.—During the last few years this article has had an indifferent sale, and has suffered much from attacks of insects. The cultivation has been reduced in order to create a better sale, and in the beginning of last season dealers were compelled to pay 17s. 6d. to 18s. per cwt. To-day the article is for sale at 12s. 6d. to 15s.

VALERIAN ROOT.—The last crop was a more abundant one than ever before, and prices declined quickly from 32s. 6d. to 22s. 6d. or 25s. per cwt., which are to-day's quotations. They will probably decline still further.

ERGOT OF RYE.—A temporary advance to 1s. 9d. per lb. was caused by a sudden demand. At that rate extensive purchases were made, but the activity soon slackened, and new crop is now for sale at 1s. 5d. to 1s. 5½d. per lb.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

The Pharmaceutical Society.

SIR,—I have often been surprised by the tone of your correspondents when writing about the Society. Some men appear to think that when they have passed its examinations they should be furnished with a good business, a high social status, and an assured competence. Any result short of this is, to these men, a ground of dissatisfaction and complaint. This perpetual grumbling is not only unfair to the Society, but is misleading to the young men in our charge, in whom we would see growing up a feeling of admiration and respect for the body to which they must all apply for a diploma as a recognition of their scientific attainments. I say scientific because I think that very often a mistake is made on this point. A diploma does not make a good tradesman, any more than a literary degree makes a good preacher or an efficient clergyman. But a man with a degree or a diploma is nowadays in a position to take the higher rank or the better position, other things being equal. The world has its own opinion of a man who aspires to a scientific grade without being able to refer to an alma mater of some sort. I maintain that the Pharmaceutical Society, by keeping up the standard of its examinations, has very honestly discharged the important duties with which Parliament has entrusted it, and, having raised the "trade" to the rank of a profession, has made the chemist a man with a claim to the respect of his fellows. I am, therefore, always troubled when I see any attempt made to discredit the Society or to disparage its doings in the eyes of those whom we have undertaken to train up. We make our livings by our tact and hard work—not by imitating the hypothetical young gentlemen who have managed to get into some snug Government office. I was very much pleased to see that the Lords could so far open their understanding as to insert the "qualified assistants" clause in the Pharmacy Bill, and hope the Commons will not reject it. This new feature will perhaps be a caution to the corner or suburbs grabber.

Yours truly,

HEDER. (17/46.)

The Medicine Stamp Act.

SIR,—Referring to your correspondence upon this matter, the Society of which I am the Secretary would undertake to fight a case of the kind referred to, and would contribute towards the expense.

The difficulty is to find some person who is willing to run the risk of paying the costs in the event of non-success, but this difficulty might probably be got over if a sufficient fund were subscribed to indemnify him.

I cannot help thinking, however, that Mr. Finlay has taken a somewhat sanguine view of the matter.

I am, sir, yours obediently,

CHAS. R. TAYLOR,
Secretary (*pro tem.*) of the
Incorporated Society of
Chemists and Druggists
(Limited).
Boston House,
63 and 64 New Broad Street, E.C.
March 13, 1888.

SIR,—I am glad to see that the repeal of the Medicine Stamp Act is being brought forward in your valuable journal by correspondents. It, no doubt, would be a great boon to the already over-taxed chemist if the medicine stamp were done away with, as, at the present time of low prices, it falls solely on the chemist. Moreover, the opinions of what are at present not liable to stamp duty differ so much, that it is at Somerset House.

I have long ceased to look for any help from the Pharmaceutical Society.

I shall be glad to give my mite, if others will, to procure the repeal of the Act.

If a petition were sent to every town in the country, the chemists would refuse to sign it.

Bedford.

H. J. THOMPSON.

The Pharmacy Acts Amendment Bill.

Lord Milltown's Amendment.

SIR,—I observe that an amendment to the Pharmacy Bill to prohibit branch shops being managed by persons not legally qualified chemists, has passed through the House of Lords, and I note your comments thereon in your issue of March 10. As this is affecting a large number of men situated in the country, myself, I would earnestly urge all affected to place the hardships of the case before their local members of Parliament, with the view of bringing as strong an expression of opinion as possible to bear upon the amendment when it is brought before the House of Commons. Were such an amendment to become law, it would deprive a large number of experienced and competent assistants of their means of livelihood.

I am more than amused, Mr. Editor, to note your remarks as to Lord Kimberley "wanting to have prescriptions dispensed by a qualified man, and not by some one who will ignorantly put a poisonous drug into his mouth." Do you really mean, sir, that a youth of, say, 22 years of age, who can write A.P.S. to his name, enjoys any probability of making a mistake than the man of experience who has dispensed medicines, it may be, for ten or twenty years without error, and whose knowledge may be infinitely superior to the inexperienced man who is legally qualified? It may not be generally known that at least 90 per cent. of the medical men now in practice have their prescriptions dispensed on their own premises by their own dispensers, who, in every case, are legally unqualified; in a great many instances the prescriptions being dispensed by their sons or daughters, and in some cases even by their clerks. If, as the clause be framed for the public protection, Lord Kimberley evidently thinks, let it also include dispensers employed by the medical faculty.

I enclose my card, and am,
AN UNREGISTERED MANAGER. (18/72.)

Homœopaths and the Minor.

SIR,—I belong to that much misunderstood class of individuals known as "homœopaths," and to me it seems a strange anomaly that those who happen, by choice or ignorance, to be trained as homœopathic chemists, should have to take the Minor qualification before they are in a position to become "chemists." Not that I think I have ever learned too much. A man would learn in studying the Minor much that would be necessary to qualify him as a homœopathic chemist, but there are many assistants in the line of business, well informed in many subjects of chemistry, botany, and general materia medica, and in homœopathic dispensing, who are yet precluded from taking the Minor, or qualifying exam., because they are strangers to the routine and practice of ordinary dispensing and trade. I have been in my present position nearly a decade, and have attained a certain amount of proficiency in our line. Now, if I were by any chance in my position, I should have some difficulty in getting my position, perhaps, with a homœopath (these gentlemen most of them are) to compete for a situation at an allopathic chemist's.

[The quinine is partly precipitated by the perchloride of mercury, which, indeed, precipitates most alkaloids. Dissolve the quinine in the acid and an ounce of water, add half

of the syrup, and the remainder to the liq. hydrarg. perchlor. Mix, and finish in the ordinary way, adding a "shake" label. The mixture cannot be dispensed clear.]

A Pill Query.

SIR,—What excipient should be used to make the following a hard small pill?—

Acid. carbolic. ..	..	..	..	gr. j.
Pil. asafetid. co.	..	..	..	" iiij.
Ft. pil.				

N. S. (14/50.)

Hydrargyri Oxidum.

SIR,—In the following prescription what should be used for hyd. oxid.—the yellow or the red?—

Hyd. oxid. ...	..	..	..	3ss.
Axungie ..	..	..	..	3ss.
M.				

Also, which preparation is usually called hyd. binox.?

Yours faithfully,

OMEGA.

[The red oxide (levigated) should be dispensed when the variety is not specifically mentioned. There are cases, no doubt, in which the yellow oxide may be indicated, but the above does not appear to be one of them. Hydrarg. binoxide is the ordinary oxide.]

LEGAL QUERIES.

12/26. *Quibal* states the following case, and asks for advice:—Two brothers, A. C. and B. C., succeeded to a chemist's business, the price of which was 800*l.*, payable 400*l.* down, and the remaining instalment in twelve months. Neither of them had any money, so the 400*l.* for the first payment was borrowed. This amount having been paid over to the vendors, the parties commenced business, and it was intended they should carry it on as partners. They opened a banking account in their joint names, A. and B. C., and a notice was sent by the vendors to the firms with whom they dealt announcing the disposal of the business to A. and B. C., but that it was the latter parties' intention to carry on the concern for some time under the style of the old firm (being well known). No alteration was, therefore, made on the sign outside, or on any labels, except on one kind of label ordered just at that time the names A. and B. C. appeared in brackets underneath the names of the old firm. There was no deed of partnership drawn. The brothers could not agree, and in three months B. C. left, quite of his own free will, not having been sent away at all. A. C. then undertook the whole of the responsibility himself, had to see about paying interest on, and finally repay, the borrowed capital, and also to find the money to pay the second instalment for the business. As soon as B. C. left, A. C. carried on the business entirely in his own name, altered the sign, ordered new labels, and had the banking account transferred to his own name.

Over six years and a half have now elapsed, and B. C., who, in the meantime, has taken a business of his own, and is doing well, has not in any way interfered; but now, finding out that A. C. has repaid all the loans, &c., and quite on his own legs, B. C. now claims, through his solicitors, the sum of 500*l.* in full discharge of his claim as partner in A. C.'s business. I shall be glad to get your opinion morally and legally as to what amount, if any, you consider B. C. entitled to under the circumstances. I may add that A. C. only had the privilege of drawing cheques.

[There are hardly sufficient facts stated to enable a correct opinion to be given. It is important to know what capital, if any, was contributed by B. C. to open the banking account and for current expenses, and whether the business premises were conveyed to A. C. alone, and what conversations or arrangements took place between the two parties before B. C. retired.]

More than six years having elapsed since the *de facto* dissolution of the partnership by the voluntary retirement of B. C., it appears, so far as can be gathered from the facts

stated and in the absence of any deed of partnership, that the latter is barred from his remedy in the shape of an account by the Statute of Limitations, 21 Jan. I. c. 16. Even if such were not the case, the claim for 500*l.* appears to be far beyond anything to which he could be entitled.]

19/24. *Cortex*.—The manufacture of a perfume under the title of "Eau de Cologne" is evidently open to many objections. Vendors would not be justified, however, in selling their products labelled in a style which should colourably imitate the style of some established firm. It is true that "Eau de Cologne" is named in the schedule of the Medicine-stamp Act, but the preparation there referred to is understood to have been a medicinal cordial, and the Board of Inland Revenue do not enforce the Act in reference to perfume sold under the same name.

14/60. *Cymraeg*.—It is not essential that indentures should be drawn up by a solicitor. Stamped forms are issued by the Board of Inland Revenue, which will be found sufficiently clear in most cases.

90/60. *G. R. D.* says he is insured in a Plate-glass Company and in a Fire Insurance Company. One of his pier-glasses lately got broken in the following way:—he mended it the paraffin lamp, and thoughtlessly placed it on the mantelpiece in front of the mirror, and after a few minutes the glass cracked. "G. R. D." applied to the Plate-Glass Company for a new glass; they say the claim does not come under their policy. He gets the same answer from the Fire Insurance Company. Has he any remedy?

[It is impossible to give an opinion of any value on the construction of the two policies without reading them. It would, however, be a great stretch of language to hold that the lighting of a lamp constitutes a fire. Unless, therefore, the fire policy is a much more liberally-worded one than the usual fire office is not liable. If the pier-glass was covered by the wording of the plate-glass policy, and the latter contains the usual arbitration clause, our correspondent must comply with the requirements of that clause, as he cannot bring an action until he has done so.]

20/52. *A. P. S.*—The Board of Inland Revenue do not as a rule give notice before commencing proceedings. They generally inform the vendor that he is liable to a penalty of ten pounds for having sold a certain article unstamped, and they offer him the opportunity of giving any explanation before legal steps are actually taken. If he surrenders they frequently reduce the fine to 1*l.*, 2*l.*, or more, or perhaps forego it altogether.

10/65. *Pharmacist*.—Limousin's patent for medicinal capsules" is dated January 25, 1876, and claims to be themselves and the apparatus for preparing them. I do not know whether any subsequent patent for such capsules has since been granted.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulae which have already been published in this journal. It is quite fair to more careful readers that we should not repeat such information, and so long as the back numbers containing the formulæ, or replies required, are in print we must decline to do so. Back numbers from March 1888 onward can be obtained from the publisher at 4s. each.

Vaseline Cold Cream.—See p. 259 of current volume. (16/10. *Indagator*.)

Angostura Bitters.—See p. 823 of our issue of December 24, 1887. (16/5. *Bute*.)

Silvering Solution.—See p. 176 of current volume. (13/17. *J. H. Gushie*.)

Mist. Bismuthi c. Pepsin.—See THE CHEMIST AND DRUGGIST, November 26, 1887, p. 689. (15/57. *Q. Naylor*.)

Candy.—See THE CHEMIST AND DRUGGIST, 23, 17, p. 110. (Another formula will shortly appear. 7. 42 S.)

liquid Starch Gloss.—See THE CHEMIST AND DRUGGIST, Augt 20, 1887, p. 233.

Books.

71. **elfast.**—For information regarding the manufacture of ordials see the book recently published by Messrs. Howell, price 2s. 6d. British wines are dealt in "The Licensed Victualler's Manual" (Simpkin, Hall & Co.).

65. **nes.**—**Mechanics for the Medical Preliminary.** Dynamics" (Collins' Series) and "Blackie's Dynamics" are the books recommended by the University.

44. **umbo (Manchester).**—The best books on the subject are "The Art of Soap-making" (Crosby Lockwood, 7s.), and Piesse's "Art of Perfumery" (Trübner, 18s.).

16. **ursi.**—**Homœopathic Therapeutics.**—Hughes's "Equal" Leath & Ross, 12s. 6d.). Also inquire of the Homœopathic Hospital, Great Ormond Street, W.C.

36. **Black Tincture of Myrrh for Cattle (Tinct. Aloet Myrrhæ).** Aloes, 1 lb.; myrrh, $\frac{3}{4}$ lb.; hay, 2 lb.; rectified spirit, 5 pints; water, 3 pints. Make tincture by maceration for seven days in the ordinary manner.

16. **na Ursi.**—Various glazes are used, but for the use mentioned the substance employed is most probably soda alum or mixed with borax.

7. **Ms.**—**The Red Colour for Sausages** which is probably the "soluble vegetable" red coloured by confectioners, and procurable from essence of cochineal.

1. **Dymond.**—Five-grain doses of salicylate of soda three times a day are beneficial for "acid diathesis," but in long-standing cases a course of tonic treatment is indicated.

1. **F. Z.**—Methylated spirit to which 2 per cent. of salicylic acid has been added is a good preserving fluid for all plants.

1. **Chineal.**—There is nothing added to sugar in order to make it crystallise when formed into candy. If you take 1 lb. of granulated sugar, say 1 lb., add to it 6 oz. of water, and with constant stirring, a point is reached at which the sugar suddenly crystallises. You require to hit a point between that, and by a little practice you will be able to do so.

1. **raz.**—**Cultivation of Henbane.**—You will find information on this subject in a paper by Mr. Wm. Gilmour, Journal, 1884, page 273, also in a paper communicated to the Pharmaceutical Conference in that year. We observe that the Director of the Royal Botanic Gardens, Kew, has seeds of *Hyoscyamus niger* and *H. niger*, for exchange and distribution. A small quantity for experimental purposes may be obtained from him. Please reply to "Ung. Simplex."

1. **H. A.** asks:—"How can I dissolve otto of rose in alcohol?" On heating it it dissolves, then on cooling it again precipitates. I have tried it several times. On heating the otto is filtered out and left on the filter. The best otto."

1. **Unsolved portion** is not the odorous principle of the oil of stearoptene, the solubility of which cannot be

increased except by the use of absolute alcohol. The otto should not be heated with the spirit, but simply agitated with it in the cold and filtered.]

14/74. **Cymro** (London) writes:—"In making Vinum Ferri is the part of the iron not immersed in order (as Wills says) that it may be oxidised, as the acids only dissolve the oxide, and in frequently removing the stopper the object is to admit a fresh supply of air to oxidise more of the iron? Another well-known lecturer told me that the vin. ferri liberates hydrogen, which sticks in bubbles to the iron, and the jar is shaken and stopper removed in order that the hydrogen may escape. I should like to know which is right."

[The former theory is the old one promulgated in connection with the formation of *Globuli martialis* (*Ferrum tartaratum*) by digesting iron filings in a mixture of cream of tartar and water. The theory was that the iron is converted into ferric oxide (really hydroxide, $\text{Fe}_2\text{H}_6\text{O}_6$) partly by the oxygen of the air, and partly by the decomposition of water, the oxide at the same time combining with the acid tartrate. In favour of this theory there is the fact that a large excess of ferric hydroxide is formed in vinum ferri during maceration; also that no one, as far as we are aware, has demonstrated the correctness of the direct combination theory.]

Lukeman.—The best way to affix labels to tins is to varnish the tin, and when dry stick on the label with ordinary mucilage.

178/14. **J. H. Kirby.**—To whiten Pianoforte Keys make a paste of precipitated chalk and solution of ammonia, apply this to the surface with a brush, taking care that none gets between the keys. When dry brush off. Repeat if necessary, and polish with a thick mixture of wax and turpentine.

14/15. **Progress** thinks it would be a great boon if patent-medicine stamps were perforated like postage stamps are, and asks what would be the best plan to bring about this needful reform? The only course we know of is for those who feel the necessity to press it on the Board of Inland Revenue, Somerset House.

15/32. **F. M. C.**—Candidates for the Sanitary Science Certificate (Cambridge) must be on the medical register, and twenty-four years of age. The examination is in two parts: I. Physics and chemistry; II. Public health laws, sanitary statistics, epidemic and infectious disease, and sanitation generally. The examination lasts two days, and is oral, practical, and in writing. Fee, 4l. 4s.

19/59. **Lin. Plumbi Lactatis Co.**—**M. P. S.** writes:—"If 'J. A. C.' will try the following I think he will find it answers the purpose:—Take a pint of fresh cream, and to each ounce add 1 grain of salicylic acid, dissolve, and then add f. 5ij. liq. plumbi subacet. B.P. Of course the quantity of liquor plumbi can be raised if necessary. It is the old *cremæ lithargyri* (see "Beasley"), with the addition of acid salicylic. The label may possibly have something to do with its efficacy."

19/44. **Lambing Oils.**—**Oil** sends a label for this preparation supplied by certain printers, the directions on which read thus:—

Shake the bottle well and apply it to the parts in the usual way. Give two table-spoonfuls for a dose. Should the pain continue, repeat the dose every hour and a half.—In EXTRAORDINARY CASES, where the pain does not abate, the dose may be increased one half.

Oil was not aware that the preparation was ever given internally. **Oil** uses 1 oz. of carbolic acid to 40 oz. of sweet oil coloured.

Carbolic acid in oil is not unfrequently given internally, but it is not a practice we can recommend for straining in ewes. When they die of septic symptoms, it is because the

poisonous matter has already been absorbed, and drenching the animal with a view to counteract it is useless. It is far better to apply the antiseptic by a syringe or small hand to the parts, and thus go to the origin of the malady and prevent septicæmia. In cases of prostration, where it is feared the morbid matter may have already been absorbed, it is better to give the following:—

Potass. iodid. gr. ij.
Ol. morrhue ʒj.

M.
Pro dosi. Bis die.

Some veterinarians of eminence give

Tinct. opii ℥xv.
Ether sulph. ʒss.
Aquæ ad ʒij.

M.
Pro dosi. Bis die.

while others attribute the absorption of morbid matter to the non-contraction of the uterus, and give small doses of ergot— $\text{m} \times$. to xv. of liquor ergotæ, with pulv. zingib. ʒij.—mixed with half a pint of hot ale or thin gruel.

There is no doubt ether and opium act most beneficially, but the action of ergot is uncertain in ruminants.

9/66. *F. Clarke*.—Bracher's apparatus would suit your purpose, but see advertisements which appear in this journal periodically, and apply to the various makers for full particulars.

11/68. *Lin. Saponis*.—(1) The substance which you describe is sold by pedlars in London as "lavender." It appears to be a dried vegetable substance upon which a few drops of oil of lavender have been placed. (2) It is not intended that the whole of the soap in *lin. saponis* should dissolve; the margarate of soda of the soap is insoluble, and the oleate soluble. Use good Castile soap, and be careful to macerate at 70° F., as the Pharmacopœia directs.

13/28. *Y. D.*—We must leave Mr. Loissette to make his own announcements.

13/28. *Y. D.* would like to hear whether hiring out syringes or other apparatus is profitable.

12/15. *W. B. R.*—*Liq. Santal Flav. Co.*—The last issue containing this formula being out of print we now reproduce it for the satisfaction of several inquirers.

Ol. santal. flav.	..	..	..	200 minims
„ cubebæ	..	..	..	100 „
„ copaibæ	..	..	..	30 „
„ pimentæ	..	..	..	5 „
„ cassiæ	..	..	..	5 „
Tinct. buchu	..	..	..	100 „
Inf. buchu co. (1 to 7)	..	..	..	600 „
Aquæ	..	..	..	300 „
Sp. vini rect.	..	..	..	750 „
Liq. potassæ	..	..	..	600 „
Pulv. lap. pumiceis	..	..	..	3 drachms vel
Caleis hydrat.	..	..	..	1 oz.

Heat the liquor potassæ to the boiling-point, and pour into a bottle along with all the oils. Allow to stand for two days, shaking occasionally; after which add the water, and let stand for half an hour, and then add the tinct. buchu, inf. buchu, and spirit, and shake well together. Lastly, add the lime or pumice-stone, and allow the whole to stand for three days, when it may be filtered through paper.

13/12. *Non-alcoholic*.—Salicylic acid, bisulphite of lime, glycerine, and boracic acid are the most commonly used preservatives for unfermented wines, except in those cases where alcohol is added. Salicylic acid is, on the whole, the most satisfactory of these; it should be used along with glycerine—say, 10 grains of the acid and 2 oz. of glycerine to each pint of syrup.

10/70. *Quebec*.—The following is the Brompton Hospital formula for *Mistura Scillæ Composita*:—

Aceti scillæ ʒij
Tincturæ camphoræ compositæ ʒij
Spiritus ætheris nitrosi ʒij
Liquoris ammoniæ acetatis ʒss
Mistura camphoræ ʒij

Misce. Fiat mistura. Dose: ʒj.

The "Brompton Hospital Cough and Consumptive Cure" is, we believe, a proprietary article, for which we do not have the formula.

Delta, E. M., and others.—In giving a formula for *Chilblain Cerate*, we stated that the tincture of Arnica should be omitted for unbroken chilblains. For "broken" read "broken."

17/16. *Temperance Experiments*.—*Mr. J. A. Brown*, Amphyll, says "Spes" will find some information in "The Worship of Bacchus," published at 2d. and 1s. by the Band of Hope Union, 4 Ludgate Hill. He can give him a copy. An interesting experiment is detailed in THE CHEMIST AND DRUGGIST, December 11, 1886, p. 769.

13/9. *Powder*.—(1) All veterinary colleges except the pharmaceutical Preliminary examination, the London one only recognising the limit of four years. (2) For full particulars regarding the prospects of veterinary students we must refer you to our last Educational number (September 17, 1887).

13/61. *F. J. F.*—In testing the residue of lithiater by the flame test it must be moistened with hydrochloric acid.

19/29. *Camphin*.—You will find an article comparing the British and Australian examinations in THE CHEMIST AND DRUGGIST, May 14, 1887, based on a lengthy article which appeared in *The Chemist and Druggist of Australia* for April, 1887.

Python writes as follows:—*Salicylic Collodion* according to the usual formula (see Extra Pharmacopœia) gets like a jelly after a few dips have been taken from the bottle. I should be glad if anyone could tell me how to obtain this. It is not due to impurity in the acid, as I have analysed the natural acid.

[Gelatinisation, other than that due to evaporation of ether, sometimes occurs owing to modification of the pyroxylin. We presume that that is the cause in some cases and would advise a change in the kind of pyroxylin used.]

14/7. *Subscriber* (Cardiff) would like to know:—(1) Best remedy to stop bleeding of leech-bite. [Powdered tinct. of liq. ferri perchlor.] (2) Whether Dutch Drops on stamps? [Yes. They are in the schedule.] (3) Best means of preventing eye turning black after receiving a blow. [A piece of raw beef, a leech, or Solomon's seal.]

17/44. *Cymro*.—We do not know the preparation

14/31. *C. C.*—A perfume is sometimes added to the fumes used are wintergreen, cassia, origanum, and vanilla.

14/18. *Omega*.—You will notice that there is now in liq. ammon. acet. fort. in the Pharmacopœia. To make 1 to 7 preparation, powder 15½ oz. of carbonate of ammonia add to it 3 oz. of glacial acetic acid and 30 oz. of alcohol mixed, and when effervescence ceases, sufficient acid added to neutralise and distilled water to 45 fl. oz. For details see last week's issue.

NEPENTHE.

(Prepared exclusively from Opium.)

The safest and best preparation of Opium; produces neither headache, sickness, nor constipation.

Dose, the same as that of Tinct. Opii, B.P.

Price 8s. per pound.

In the analysis of 10,000 prescriptions recently published in THE CHEMIST AND DRUGGIST, Nepenthe occurred more frequently than any other proprietary article except Vaseline and Chlorodyne.

The word **NEPENTHE** being registered under the Trade Marks Act, Messrs. FERRIS & Co. have the **SOLE RIGHT** to use it; and the Trade are respectfully cautioned against any infringement of their Trade Mark **NEPENTHE**, and the use of any Mark so nearly resembling it as to be calculated to deceive; and against the application of any false trade description, and against any interference with their privilege (see 'Merchandise Marks Act, 1875, 50 & 51 Vict. ch. 28); and also against dispensing any but Messrs. Ferris & Co.'s preparation when **NEPENTHE** is ordered in a prescription.

Trade and Wholesale Terms for NEPENTHE upon application.

FERRIS, BOORNE, TOWNSEND & BOUCHER,

WHOLESALE AND EXPORT DRUGGISTS, BRISTOL.

FIVE PRIZE MEDALS AWARDED.

VAN HOUTEN'S COCOA

[PURE]

is **ADMITTED** to be

[SOLUBLE]

ICOMPARABLY THE BEST in the world **and THE MOST ECONOMICAL**

Produces instantly a most delicious, refreshing, highly nourishing drink, easily assimilated even by the most delicate invalids or children. No milk required.

On account of the **great strength cheaper** to use than tea.

For breakfast, lunch or supper. For rich and poor.

Invaluable in hospitals, on board, in the camp, railway stations, for workmen (at home and to take to their work), etc., etc.

"It is admirable"—"flavor is perfect"—"so pure & rich"—**BRITISH MEDICAL JOURNAL**

"delicate aroma"—"really cheaper in the end"—**THE LANCET.**

ONCE TRIED, ALWAYS USED AND RECOMMENDED.

Sample Tins Free through your Grocer or Chemist.

CAUTION!

DALMAHOY'S EAU DE MENTE PECTORAL

(Or CORDIAL PEPPERMINT WATER).

Merchants and Shippers are informed that the only genuine article so long known under the above name is made and sold Wholesale only by Arthur S. Hill & Son, 101 and 103 Southwark Street, London, the sole proprietors, whose name and address are moulded in the glass, branded on the cork, and with the registered trade mark are engraved on the label of every bottle.

**ALL INDENTS FOR DRUGS AND MEDICINE RECEIVE
CAREFUL AND PROMPT ATTENTION.**

*Tinctures and Æthereal Preparations supplied in Bond for
Export at considerably reduced prices.*

Telegraphic Address—

"ASHILL LONDON."

Monthly Price Lists on application, and
special quotations for quantity.

REGISTERED TRADE MARK.



SQUIRREL BRAND.

ARTHUR S. HILL & SON

(ESTABLISHED A.D. 1755),

Wholesale and Export **Druggists**

And Manufacturing Chemists,

101 & 103 SOUTHWARK ST., LONDON

Silver Medal at Inventions Exhibition 1885.

Established
1798



Howards & Sons

FLUID EXTRACT OF CINCHONA,

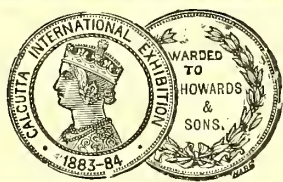
made from C. Califaya, or C. Succirubra, containing the whole alkaloidal contents of the bark.

QUININE, CINCHONA ALKALOIDS,

Acids, pure.	Citrate of Iron & Quinine, P.B.
Æthers, pure & methylated.	Citric Acid & Citrates.
Antimony preparations.	Corrosive Sublimate.
Benzoic Acid & Benzoates.	Iodides of the Alkalies.
Bicarbonates of Soda (Howards').	Iodoform.
Bismuth preparations.	Magnesia.
Boax & Boracic Acid.	Mercurials, Calomel, &c., &c.
Bromides of the Alkalies.	Rochelle Salt & Pulv. Seidlitz.
Camphor Balls, Blocks, & Flowers.	Spirit preparations.
Cocaine Hydrochlorate.	Urethane & Hypnone.

AND OTHER PHARMACEUTICAL CHEMICALS.

Stratford, Essex.



Detailed Price Lists on application.

DR. CHURCHILL'S

*Syrup of Hypophosphite of Soda,
Syrup of Hypophosphite of Lime,
Syrup of Hypophosphite of Iron,
Compound Syrup of Hypophosphites,
Syrup of Hypophosphite of Manganese,
Pills of Hypophosphite of Quinine.*

Price, 4 francs per Bottle in France.

Dr. Churchill's Pectoral Tablets,

Price, 2 francs per Box in France.

Dr. CHURCHILL, author of the discovery of the curative properties of the HYPOPHOSPHITES in Chest affections, recommends none but those prepared by

SWANN, PHARMACIEN, PARIS.

Each Bottle bears Dr. Churchill's Signature and Swann's Trade Mark.
SWANN, 12 RUE CASTIGLIONE, PARIS.

RIVER PLATE, SOUTH AMERICA.

Centro de Alimentos Digestivos, Productos Farmacéuticos &c.
Calle de Cuyo 465, 467, & 469, BUENOS AYRES.

CARLOS J. CHRISTIE & CO.

General Commission Agents,

Specially dedicated to the introduction of **Pharmaceutical Preparations, Surgical Aids and Appliances, &c.**, in the propagation and sale of which they possess special facilities, owing to their extensive connection amongst the buyers, and the fact of their being personally acquainted with the great majority of the Medical Profession of the and the adjoining Republics, whom they canvass periodically.

Correspondence, which will receive prompt attention, solicited.

Address: Messrs. **CARLOS J. CHRISTIE & CO.**

Apartado de Correos, P. O. Box No. 918,

BUENOS AYRES, RIVER PLATE.

MENTHOL Our Extra Steam Refined quality, is in firm, hard, dry and snowy white crystals, entirely free from oily contamination (therefore of the highest melting point.) As the original and full manufacturers in the world of the true Japan Menthol, we guarantee our brand to be absolutely pure. Beware of substitutes. Particulars, therapeutic uses, etc. see special circulars to be applied.

Our Extra Steam Refined Oil is treble distilled and twice rectified by steam, by an entirely new process and in apparatus of our own invention, by which all these polymeric products

PEPPERMINT of a tarry and resinous nature which are objected to by some consumers are extracted. It is a white colour, retaining its full aroma, pungency and strength and guaranteed absolutely pure and soluble in spirits of wine.

Yokohama,
Japan.

COCKING & Co.

Established
1868.

Commission Merchants, Wholesale Druggists and Manufacturing Chemists.

OTHER SPECIALITIES.

Cod Liver, Fish and Orange Oils, Vegetable Wax and Isinglass.

Monthly Market Report and detail circulars on application.

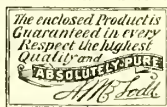
LONDON AGENTS:—SPIES BROS & Co., 106, Fenchurch Street.

Telegram Address—"COCKING YOKOHAMA."

The Most Extensive Peppermint Works in the World. Established A.D. 1869.
EXPOSITIONS INTERNATIONALES GRAND PRIZE MEDALS.

A. M. TODD, GROWER, DISTILLER, and REFINER of CRYSTAL WHITE OIL PEPPERMINT.

This quality may now be ordered through the principal Wholesalers of Great Britain, at special introductory prices, in sealed Bottles of 1lb., 8oz., and 4oz. It is positively guaranteed not only in every respect the highest quality manufactured, but also the most profitable and economical in use—less being required—while the highest possible results are uniformly and quickly obtained. With the immense adulterations in Essential Oils guaranteed as pure by houses of supposed respectability, your protection lies in the guarantee of a Manufacturer whose life has been devoted to the advancement and protection of quality. Notice that all genuine containers have my name impressed thereon, being sealed with Metallic Caps and guarantee of quality over my signature. (See larger advertisement in next CHEMIST AND DRUGGIST.)



SPECIAL AGENTS—

Burgoyne, Burbidges & Co., London; Jas. Woolley, Sons & Co., Manchester.

EAR SYRINGES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO. LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, EVANS, SONS & MASON, LIM.

60 Bartholomew Close.

Montreal, Toronto, and Victoria,
British Columbia.

CAMPHOR

This is the genuine essential oil as produced by the manufacture of the Solid Camphor of Commerce. Our oil is guaranteed to be the natural oil and not the fictitious mixture of refuse Camphor and Turpentine generally sold. Having made a special study of its manufacture we have succeeded in producing a colourless oil and entirely free from any smell. It is a remedy in Rheumatism, a good solvent of resins, and the most valuable article for the use of the essential oil distiller.

UNITED STATES.

B. KEITH & CO.,

MANUFACTURERS OF

PURE CONCENTRATED MEDICINES, CONCENTRATED TINCTURES, ETC.

We make a full line of **RESINOIDS**, such as **PODOPHYLLIN, LEPTANDRIN, EUONYMIN, IRISIN, HYDRASTIN, &c., ALL PURE.**

So-called Concentrations are in the market, called by the same names as manufactures, that are made by triturating extracts etc., with milk, powdered root, etc.

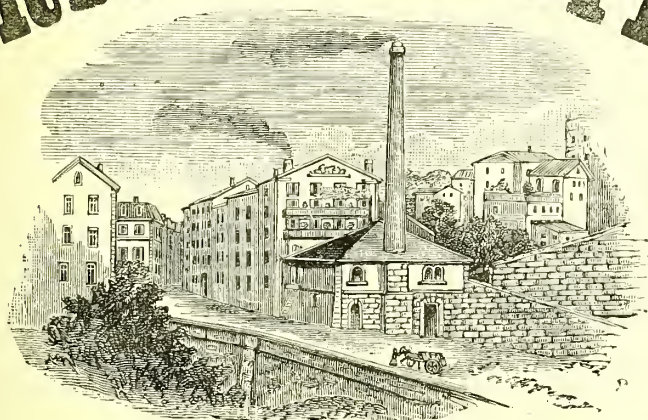
WHAT ARE CONCENTRATED TINCTURES

They are not made from the crude material, but by dissolving active principles in Alcohol in definite proportions, and invariably represent a uniform amount of therapeutic power.

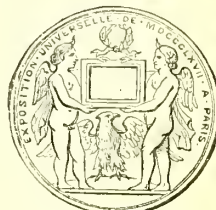
Send for printed matter on **CON. TINOT. AVENA SATIVA** in Morphia or Opium Habit, and certificates from different members of the Medical Profession, citing cases under their charge, treated by it; **REVISED AND ENLARGED MANUAL; also Price Lists, to**

B. KEITH & CO.,
75 WILLIAM STREET, NEW YORK, U.S.

WARRICK BROTHERS



View of the Factory at Grasse, Alpes Maritimes, France.



PARIS, 1867.



OLD SWAN LANE,
LONDON, E.C.

WARRICK FRÈRES, GRASSE and PARIS.

Also NEW YORK—84 Church Street.

HIGHEST AWARD, ADELAIDE EXHIBITION, 1888.

HEADQUARTERS

FOR

RAW MATERIALS FOR PERFUMERY

ESSENTIAL OILS:

Almonds	Lavender	Peppermint	Spike
Bergamot	Lemon	(Warrick's Selected)	Thyme
Eucalyptus	Neroli	Rose (Otto) V.V.F.	Wintergreen
Germium	Orange	Rosemary	etc., etc.

COMMODES et HUILES PARFUMÉES.

EXTRAITS AUX FLEURS:

Maiglöckchen (Rd.); Mimosa, White Lilac, White Heliotrope, etc., etc.

FRENCH WATERS: Rose, Orange Flower, etc., etc.

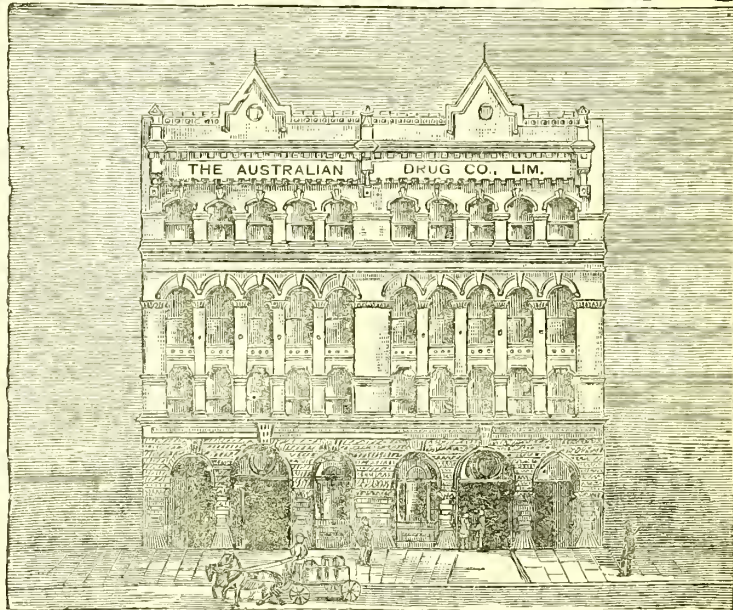
OLIVE AND ALMOND OILS.

AMBERGRIS, CIVET, MUSK, ORRIS, TONQUIN BEANS, VANILLA, etc., etc.

NEW SOUTH WALES

THE AUSTRALIAN DRUG CO., LIM.,
LATE E. PROSSER & CO.,

IMPORTERS OF PATENT MEDICINES, DRUGGISTS'
SUNDRIES, DYE GOODS,
SURGICAL INSTRUMENTS, PERFUMERY,
FANCY SOAPS, SPONGES.



IMPORTERS OF BRUSHWARE, CURDIAL MAKERS,
MACHINERY, CORKS, BOTTLES, LABELS,
PHOTOGRAPHIC CHEMICALS AND MATERIALS.

Wholesale Druggists, 19 & 21 O'Connell Street, SYDNEY.*Agencies for Patent Medicines and other Goods solicited. Travellers cover New South Wales and Queensland.*

London Agents: LAUGHLAND, MACKAY & BAKER, 85 Gracechurch Street, E.C.

GENUINE EAST INDIA MUSTARD SEED OIL**GUARANTEED ABSOLUTELY PURE AND UNADULTERATED.**

The ordinary 1/- size, 50/- a gross; also an extra large size, to be retailed at 2/-, at 90/- a gross, leaving a good margin of profit to the retailer. As it is now universally being advertised, there is setting in an increased public demand.

IMPORTANT CONCESSION!!!—Note: On all first orders for an original case of this size, an extension of credit of six months will be afforded, thus enabling the retailer to secure all the benefit of sale every bottle before paying a single shilling out of his own pocket.

Artistic Window Tablets, Stationery, &c. with each order.

CERTIFICATE OF ANALYSIS.

"I hereby certify that this is a genuine unmixed Mustard Seed Oil.—(Signed) A. NORMAN TATE, F.I.C., F.O.S., Liverpool, August 8, 1887."

GREAT REDUCTION!—NEW AMERICAN OIL OF PEPPER-MINT, NOT deprived of its Menthol, 8s. 9d. per lb.

In original 22-oz. bottles.

CHILIAN HONEY— $\frac{1}{2}$ -cwt. tins, 3d. per lb.

Non-freezing, Finest Norwegian COD-LIVER OIL, guaranteed premier quality; 25-gallon tin-lined barrels for £5, or in $4\frac{1}{2}$ -gallon tins at 4s. 6d. per gallon.

DRUGGIST'S WHITE GLYCERINE, 12·60—9d. per lb., 60-lb. tins (expected to be dearer).

ESS. LEMON (NEW)—4s. 6d., 10-lb. tins.

DALMATIAN INSECT POWDER in Original 28-lb. tins at 1s. 2d. per lb.

P. RHEI, E.I. ELECT.—7-lb. bottles, 3s. per lb.**NOTE.—All PACKAGES FREE, and delivered to RAILS FREE.****SENNA T.V.**—56-lb. bags, 3 $\frac{1}{4}$ d.; and 2-cwt. bales, 3d. per lb.**CIRCASSIAN OIL**—40-gallon barrel, bright and clear, 15s.

COLZA OIL—1s. 6d. per gallon (for Hair Oil, &c.); 9-gallon tin, for 15s.

Special—PETRO. JELLY (firmer than VASELIN)—4d. per lb., 40-lb. tins.

"STRUCK DOWN DEAD" VERMIN KILLER, 1 case of three-penny size carriage paid for 10s. 6d.; "Patent Register" free.

PURE CRYSTAL MENTHOL CONES, MOUNTED neat turned-wood boxes for the pocket. 1 gross sent free, per *Parcels Express*, TO ANY PART OF THE WORLD on receipt of P.O.O. for 21s.; id est—sixpenny size delivered free at 1 $\frac{1}{2}$ d. each.

GOOD MERCHANTABLE QUALITY GUARANTEED.**E. R. BANNER, Drug Merchant, 56 Boaler St., LIVERPOOL.**

NEW SOUTH WALES.

W. H. SOUL & Co.

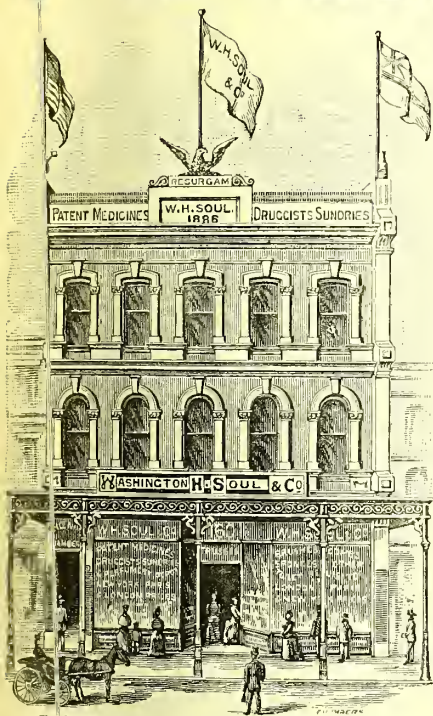
Nos. 158, 160, 162, & 268

PITT STREET,
SYDNEY, N.S.W.

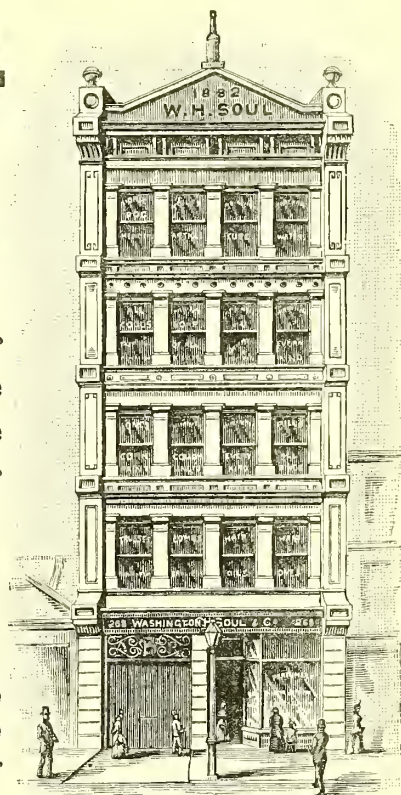
Will be pleased to
fill any lines from their
large Stock, which the
Trade may be unable
to obtain from their
usual Jobbers.

TERMS CASH.

*W. H. S. & Co. can arrange
with pushing Houses to receive
Goods on Commission for
prompt Sale in this Colony.*



7 DOORS FROM KING STREET.



4 DOORS FROM PARK STREET

VICTORIA.

ROCKE, TOMPSITT & CO., WHOLESALE DRUGGISTS, MELBOURNE,

AND

119 & 120 LONDON WALL, E.C.

Sample and Quotations solicited.

Agencies undertaken on the most advantageous terms.

*Wholesale Depot for Sander & Son's Pure Volatile Eucalyptus Oil (Eucalyptol), and Importers of Oil of Eucalyptus.
Wholesale Agents—Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, E.C.*

FELTON, GRIMWADE & CO., Wholesale Druggists and Manufacturing Chemists, MELBOURNE, VICTORIA.

LONDON AGENTS:—

*Messrs. GRIMWADE, RIDLEY & CO., Mildmay Chambers, 82 Bishopsgate Street
Wholesale Agents for Bosisto's Genuine Oil of Eucalyptus.*

NEW ZEALAND.

KEMPTHORNE, PROSSER & CO.,
NEW ZEALAND DRUG COMPANY, LIMITED,
 Wholesale Druggists,
 MANUFACTURING CHEMISTS, AND COMMISSION MERCHANTS,
 Head Office and Factory, DUNEDIN.

BRANCH HOUSES:

High Street, CHRISTCHURCH,
 Hunter Street, WELLINGTON,
 Shortland Street, AUCKLAND,

Patent and Proprietary Medicines Agency.



NEW ZEALAND.

London Agents—

Messrs. GRIMWADE, RIDLEY & Co., 82 Bishopsgate Street.

SHARLAND & CO.

ESTABLISHED 1870

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,
 LORNE, COBURG, AND VICTORIA STREETS, AUCKLAND, N.Z.,
 AND
 119 & 120 LONDON WALL, E.C.

Buying Agencies undertaken on the best terms. Special Rates to Wholesale Houses
 References given and required. Samples and Quotations solicited.

SOUTH AFRICA.

B. G. LENNON & CO.

WHOLESALE DRUGGISTS AND DRUGGISTS' SUNDRIESMEN,
 PORT ELIZABETH, CAPE TOWN, AND EAST LONDON, SOUTH AFRICA;

And 11 Edmund Place, Aldersgate Street, LONDON, E.C.

AGENCIES UNDERTAKEN

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Cask containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2-Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to account by order.

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

PUMILINE

PURE ESSENCE AND EXTRACT OF PUMILIO PINE.

We beg to announce to the Medical Profession, and also to Chemists and Druggists, that we have opened a depot at 11 Billiter Square, E.C., for the constant supply of PUMILIE.

STERN'S PUMILINE, after careful analysis by competent authorities, is proved to be the Pure Essence and the Pure Extract of the **Pumilio Pines** grown on the higher altitudes of the Alps in regions of perpetual snow, and an acknowledged remedy for **Gout, Rheumatism, Throat and Chest Affections.**

Owing to the peculiar medicinal and sanitary properties of **Pumiline**, which it *alone* of all Pine preparations (except Pinol) possesses, because it is extracted only from **Pumilio Pines** which grow in the snow it can with safety be recommended for internal administration in cases where ordinary Terebene, Pini Sylvest, &c., and the Essence of Pumilio Pines growing below the snow line cannot be used. The analytical reports explain the difference.

We have received more than *two hundred* letters from Medical Men testifying to the satisfactory results obtained by treatment with Pumiline.

SIR MORELL MACKENZIE writes:—

December 9, 1887.

"I have much pleasure in stating that I have made use of Oleum Pumilionis, and that I consider it a most valuable preparation.

“ It acts as an admirable tonic to the mucous membrane of the air passages in cases of chronic bronchitis and laryngeal catarrh.

"I am very glad to hear that the remedy is about to be used on a large scale, and I have no doubt the results will be highly satisfactory."

W. SPENCER, Esq, M.D., L.R.C.P., L.M., R.C.S.
(Retford), writes:—

"I have used Pumiline Essence with very satisfactory results in chronic laryngitis. Pumiline has been in more effectual than terebene in chronic bronchitis."

DR. GREGORY SALE, L.K.Q.C.P., L.M., L.R.C.S (Nass,
Ireland), writes:—

"I am myself a sufferer from chronic rheumatic put. I have much pleasure in stating that I have found mu benefit in the use of your Pumiline."

The *Lancet*, in an article by Dr. Prosser James, the eminent physician and lecturer on Therapeutics and Materia Medica, says:—By improved apparatus and greater care a much finer product than the ordinary Pumilio Pine Oil is now obtained, in fact a *very pure essential* Oil—Oleum Pini Pumilionis, and this it is which has lately been imported under the name “**PUMILINE.**” This essential Oil possesses in a high degree the odour of the most fragrant variety of the pine, and, moreover, is *less irritating than any other*.

The *Journal of Laryngology* (edited by Sir Morell Mackenzie) says:—We have submitted Messrs. Stern's preparations to practical examination. Their purity is undoubted. The Essence contains fewer hydrocarbon oils than any other preparations in the market, which fact alone makes it the best obtainable for inhalation treatment. We accord Stern's preparations the first place in the market.

The *British Medical Journal*, the *Medical Press and Circular*, the *Medical Recorder*, the *Medical Annual*, the *Hospital Gazette*, *Hygiene*, the *Sanitary Record*, and a number of other Medical Journals, have each and all similar Pumiline.

PRICES.	RETAIL.	WHOLESALE.
PUMILINE ESSENCE	1/6 and 2/6 per bottle	15/ and 24/ per dozen.
PUMILINE EXTRACT	1/ "	9/ "
PUMILINE JUJUBES	1/1 and 2/8 box	10/6 and 27/ "
PUMILINE SOAP	6d. Tablet, 1/6 the 3 tablets.	Subject to usual discounts.

[1]

Analytical and Medical Report, Circulars, and Samples sent free on application to

G. & G. STERN, 11 Billiter Square, LONDON, .G.

SPECIAL REQUEST.

It has lately come to our knowledge that a very inferior quality of a
Essence and Extract, fallaciously called Pumilio Pine Essence and
rat, is being offered to Chemists and to the trade generally in
of the real Pumiline, which is the only pure Oleum Pini Pumilionis.
We would therefore most respectfully point out the following facts:—

THAT no Pine Essence or Extract is equal either in its PHYSICAL
or in its CHEMICAL properties to that of the PUMILIO PINE.

THAT the Pumilio Pine GROWN IN THE SNOW REGIONS of the
Alps is the ONLY ONE which contains the valuable medicinal properties
of the Pumilio Pine in their PUREST, most CONCENTRATED, and there-
fore most ACTIVE form.

THAT PUMILINE is, with the exception of 'Pinol,' the ONLY
Pumilio preparation obtained from the SNOW GROWN pines.

THAT, therefore, NO BENEFICIAL RESULTS can be obtained by
a patient when ANOTHER PUMILIO PINE Essence is SUBSTITUTED
for the PUMILINE ESSENCE (or for 'PINOL') or PUMILINE EXTRACT.

THAT the several Analytical reports by the most eminent and
competent Analysts in London, as well as more than TWO HUNDRED
LETTERS from Medical Men in the Metropolis and other parts of the
United Kingdom, and the Reports and Articles in the "Lancet,"
"British Medical Journal," and other Medical Papers, *prove the
strict truth of our claim.*

THAT such being the case it is INCUMBENT on every chemist to
use Pumiline (or else Pinol) whenever Pumilio Pine is prescribed.

We have now reduced the prices of the Pumiline Preparations so as to
bring them within the means of all patients. Our trade price list is so
arranged as to leave a very large margin of profit to Chemists, and to the
trade generally.

We therefore most earnestly invite Chemists throughout the United
Kingdom to co-operate with us in bringing our preparations before medical
men with whom they are connected, as well as the public; and we feel
assured that their customers will highly appreciate the efficacy of the
Pumiline Preparations, and that they themselves will be satisfied with the
discounts provided for them.

G. & G. STERN,

11 Billiter Square, London, E.C.

ARMBRECHT'S COCA WINE

SEE OPPOSITE PAGE.

CHEMISTS' PRICES —

One doz. Case, 40s.

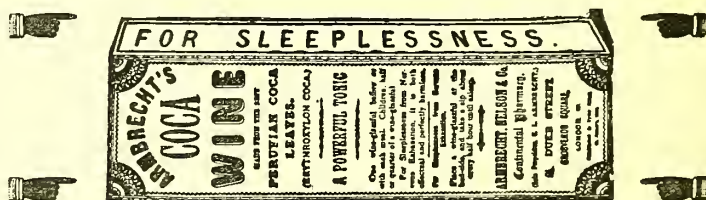
Three doz. Cases, 40s., and 2½ per cent. discount.

Six doz. Cases, 40s., and 5 per cent. discount.

Twelve doz. Cases, 40s., and 7½ per cent. discount.

RETAIL, 4s. 6d. EACH SINGLE BOTTLE.

An extra 2½ per cent. for Cash with Order, or nett Two Months' Bill of Acceptance.



EACH BOTTLE IS ENCLOSED IN STRONG CARDBOARD CASE, LINED WITH CORRUGATED PAPER, HANDSOME AND STRONG.

Coca Champagne, Trade Price, 46s. 6d. and 26s. 6d. per dozen respectively.

ARMBRECHT, NELSON & CO.

2 DUKE STREET, GROSVENOR SQUARE.

TELEGRAPHIC ADDRESS—"ARMBRECHT LONDON."

[See opposite page]

COCA WINE

(ERYTHROXYLON COCA).

FOR FATIGUE OF MIND AND BODY.

A NEW RESTORATIVE TONIC OF VOCAL, MENTAL, AND PHYSICAL POWERS.

Particularly useful in Hot and Enervating Climates.

June 28th 1887
25 New Walk Terrace York
 Dear Sir, I have been delighted with the
 samples of Coca Wine which you have sent me.
 There is a minute animalcule which is destroyed by the
 heat of summer, & which remains on the application of a
 drop of water. Antiseptic Coca Wine has a similar
 effect in reviving & restoring the exhausted energies of
 the human economy & its sustaining & strengthening
 powers are marvellous.
 Edward Allen
 Lecturer on Anatomy & Physiology
 at the late York School of Medicine

THE RETAIL PRICE OF THIS WINE IS

4. 6d. per Bottle, or 48s. per Dozen Box.

Coca Champagne Quarts	-	56s. per doz.	} Labelled Vin mousseux de Coca très sec.
Coca Champagne Pints	-	33s. „	

or sleeplessness this Wine is almost always successful, and superior to Opiates,
 Chloral, and Bromides, &c., as it produces no reaction.

For Trade Prices see opposite page.

ARIBRECHT, NELSON & CO., 2 Duke Street, Grosvenor Square.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made soon the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from representing the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she was used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

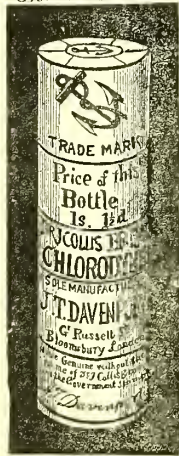
The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	don
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	don
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	bin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson	L
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	blit
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	ork
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Ed
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Bang & Barker,	ton
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	Al
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	edu
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeeton, W.,	Blrm
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Southall & Co.,	hou
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	hou
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Tomlinson, Hayward & Co.,	bin
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	Ken
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	ton
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	Man
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	try
Evans, Lescher & Webb,	London	Maw & Son,	"	Wyleys & Brown,	lon
Ferris & Co.,	Bristol	Meggeon & Co.,	"	Yates & Co.,	
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1 1/2d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmacist,

88 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON

THE "AI" COD LIVER OIL

NEW SEASON.

SPECIAL CHARACTERISTICS:

Freedom from indigestible fatty acids.

Brilliant appearance in severe frosty weather.

Absolute purity.

It is sent in first-class style, 8-oz. Bottles, which retail at 2s. 6d. each; 18-oz. Bottles, 4s. 6d. each; Wholesale, 16s. & 32s. per doz.

The Bottles are so securely sealed that the Oil, even in hot climates, remains perfectly sweet.

Packed for Export, in Cases containing 6 doz. small and 3 doz. large size.

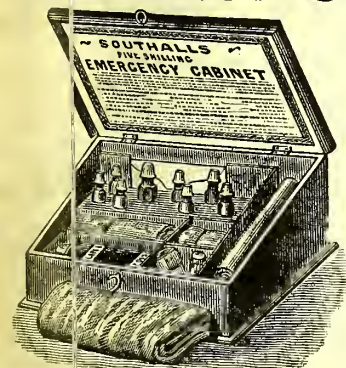
SOUTHALL'S MOSQUITO CONES.

EACH BOX GIVES TWENTY-FOUR QUIET NIGHTS' REST.

A cone burnt in a room a few minutes before going to bed will drive away or stupefy all kinds of Mosquitoes, Flies, Beetles, and other annoying Insects.

SOUTHALL'S MOSQUITO CONES, being composed of entirely harmless aromatic plants, give off an agreeable odour, which even the most delicate persons can tolerate. Price 7s. 6d. per doz.

ACCIDENT CASES FOR DOMESTIC USE



SOUTHALL'S 1s. ACCIDENT CASE

Containing Burn Liniment, Styptic Colloid, Sal Volatile, Adhesive Strapping, Gauze Tissue (for making Pads), Bandage, Camel-Hair Pencils, &c. The whole, in a card-board box, with directions for the treatment of Wounds, Burns, Blisters, Insect Bites, Faintness, &c.

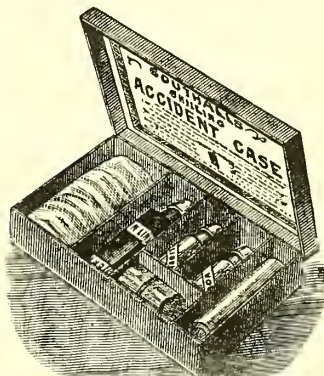
Wholesale Price, 9/6 per dozen, less 5 per cent.

SOUTHALL'S 5s. Emergency Cabinet

This is larger and more complete. The whole in a neat wooden box with hinged lid.

Retail, 5/- each Cabinet; Wholesale, 48/- per dozen, less 5 per cent.

THE CHEMIST AND DRUGGIST of January 7th says:—"Messrs. SOUTHALL BROS. & BARCLAY have produced 'Accident Cases' on a scale of cheapness much below what we thought practicable. They offer a neatly-labelled card-board 'Accident Case' to sell at 1s., and a stained wooden one to retail at 5s. A little pamphlet is enclosed with each case, giving clear and useful directions for the employment of these remedies in cases of emergency. These cases should sell freely wherever introduced, and ought to encourage subsequent trade. For families in villages, in colonial settlements, and, indeed, in most circumstances, the usefulness of a few medicines is sure to be appreciated, and a regular demand for medicine is created if the craving is encouraged."



"TENAX"

TRADE
MARK.

ABSORBENT AND ANTISEPTIC.

Specialy prepared for Surgical Purposes, and superseding Lint, Cotton, Wool, Tow, and Oakum for Dressings.

Extract from a letter on "ANTISEPTIC DRESSINGS IN MILITARY SURGERY," taken from the *British Medical Journal*, signed

P. J. Stafford, L.K.Q.C.P., Surgeon-Major, late Senior Medical Officer, Divisional Field Hospital, South Africa:—

"Tenax was applied to some of the injuries at the Battle of Ulundi, but was oftener employed to form pads, cushions, or swaths for the wounds, outside the lint dressing, to absorb discharges. This treatment was attended by the best results.

"I think that Tenax is more efficacious as a deodorant and absorbent than Carbolised Tow, although the latter is softer and more comfortable as a direct application to painful wounds."

"It possesses the tarry fragrance which is pleasing to patients; it is a cheap and simple kind of antiseptic dressing, capable of being applied to numerous surgical purposes, and is well worthy the attention of medical men engaged in hospital or private practice. We may safely recommend it, and it has answered admirably in the cases in which we have applied it."—*The Lancet*.

In 1-lb. Packets, 1s. 4d. per lb. Special quotations for large quantities.

SOUTHALL'S "SANITARY TOWELS"

(PATENTED).

Retail, 1s. & 2s per Packet of One Doz. Wholesale, 10s. & 20s. per gross, to a/c.

For protection against useless and injurious imitations each Packet bears the Signature of the Patentees.

NEW CIRCULARS FOR MEDICAL AND GENERAL DISTRIBUTION SUPPLIED; ALSO NEW SHOWCARDS.

SPECIAL PRICE LISTS for DRUGS, PILLS, SURGICAL DRESSINGS,

APPLIANCES, and CHEMICAL APPARATUS sent free on receipt of business address card.

Quarterly Issues of Price Currents for Foreign and Colonial Markets, Spanish and English Editions published alternately.

Terms on application. Satisfactory references required with opening orders.

SOUTHALL BROS. & BARCLAY,
Manufacturing Pharmaceutical Chemists, & Wholesale & Export Druggists,
Drug Mills and Laboratories, DALE END. Offices and Warehouses, LOWER PRIORY and DALTON STREET.
BIRMINGHAM.

Cod Liver Oil Manufactory, BALSTAD, NORWAY.

TELEGRAPHIC ADDRESS—"SOUTHALL BIRMINGHAM."

ALGIN,

THE ACTIVE PRINCIPLE OF ALOES,

MANUFACTURED BY THE DISCOVERERS—

T. & H. SMITH & CO., EDINBURGH AND LONDON.

"The uniformity in strength of Algin, the smallness of its dose, and the certainty of its action, should commend it to the favourable consideration of all medical practitioners."—*Vide* Dr. Wm. Craig's investigations respecting our Algin published in the *Edinburgh Medical Journal* for May 1875.

Edinburgh Address—21 Duke St. London Address—12 Worship St. E.C.

New York Office—20 Cedar Street: FRA^S. JA^S. MACNAUGHTAN, Agent. [3]

J. F. MACFARLAN & CO.,

MANUFACTURERS OF

MORPHIA AND ITS SALTS,

AND ALL PRODUCTS FROM OPIUM.

PURE CHLOROFORM,

ANSWERING ALL THE TESTS OF THE BRITISH PHARMACOPEIA.

ALSO, ANÆSTHETIC ETHER, ALGIN, BEBERIN, CHRYSOPHANIC ACID, SAICIN

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

17 NORTH BRIDGE, EDINBURGH, AND 71 COLEMAN STREET, LONDON.

PAPAIN (FINKLER).

The new DIGESTIVE FERMENT,
combining the action of
Pepsin and Pancreatin.

USES.—INTERNALLY: In Dyspepsia and Gastralgia. Geo. Herschel, M.D. Lond., writes in the *British Medical Journal*, April 3rd, 1886:—"I find it chiefly valuable in (1) the Chronic Stomach Catarrhs of Children, (2) and Dyspepsia, and (3) Severe Gastric Pain coming on shortly after eating." Recent experiments made by Prof. Finkler, and published in *The Lancet*, July 23rd, 1887, show that Papain digests far more energetically than Pepsin, when the solution is concentrated as it exists in the human stomach.

EXTERNALLY: It has been used by *Bouchut* in cutaneous carcinoma, *Rossbach* for dissolving the false membranes of Diphtheria (see *Zeitsch. für Klin. Med.*, vi. H. 6), by *Jacoby* of New York for the same purpose, and recently Prof. Finkler himself has restored patency to an œsophagus occluded by carcinoma by the continuous administration of a solution.

PIL. PAPAIN (FINKLER).

For the convenience of dispensing PAPAIN (FINKLER) these pills are made up in bottles of 25, 50, and 100 (each containing two grains each), in convenient shapes for carrying in the pocket.

SALOL.—The New Antirheumatic and Antipneumatic.

Recommended by the French, Swiss, and German Faculty (*Brit. Med. Jour.*, 17th July, 1886. Special Correspondent, Switzerland, page 130).

SOLE AGENT FOR THE UNITED KINGDOM AND EXPORT—

B. KÜHN, 36 St. Mary-at-Hill, LONDON.

Also Agent and Importer of Quinine Sulphate and the various other Alkaloids (Fabbra Lombarda Brand), Iodide Potassium, Iodoform, Santonine, St ychnine, Tannic Acid, Extract of Logwood Solid, &c. &c.

SAMPLES AND PRICES ON APPLICATION.

The Chemische Fabrik auf Actien, vormals E. Schering, Berlin,

MANUFACTURERS OF SCHERING'S

PURE CHEMICALS

PARTICULARLY OF

ACID GALIC	Almost white needles	Freely and entirely soluble in alcohol or water
" PYROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
" SALICYLIC (Kolbe's)	White, powder, crystallised and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
" TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
" "	Powder and granulated	Dissolves freely in water, alcohol, and ether.
CELLULOSE (Patent)	Gelatine plates... ..	Purest Pyroxylin; inexplorable.
CHLORAL HYDRATE	White cake and crystal	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CROWN CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE... ..	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE	Resublimed, fine scales	Purest.
IODIC ACID, Absolut.	Crystals and powder of soft touch...	Purest; made by electrolysis.
PARALDEHYD ... ..	... ..	Absolutely purest.
POTASS. BROMIDE	Fine white dry regular crystals ...	Perfectly free from iodide, and the most free from chloride.
" PERMANGANATE	Large and small crystals	Chemically pure.
" IODINE	Fine white dry regular crystals ...	Apply Barytic and other tests. This will never change colour.
SODIUM SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

H FINZELBERG, of Andernach-on-Rhine.

ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PEPSIN PORCI (100%)	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

CONRAD ZIMMER'S and FRIDR. JOBST'S BRANDS.

QUININE, Sulphate	Whitest and most bulky crystals ...	Utmost purity warranted.
" Muriate	" " " ...	" " "

SOLE WHOLESALE AGENTS—

A. & M. ZIMMERMANN, 6 & 7 CROSS LANE, ST. MARY-AT-HILL, E.C.

For Quotations, &c., apply to Wholesale and Export Drug and Chemical Houses.

METHYLENE.
Obtained by the action of Metallic Zinc on Chloroform and Alcohol.
Discovered to be a general Anesthetic by Dr. RICHARDSON in 1867.
1-lb. Bottles, 18s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.
COMPOUND ANÆSTHETIC ETHER,
For producing Local Anesthesia.
In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.
OZONIC ETHER.
In 2-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s. and 12s.
PEROXIDE OF HYDROGEN.
First introduced as a medicine by Dr. RICHARDS
ETHYLATE of SODIUM
(Dr. RICHARDSON'S Formula), for removing Nævi, &c. In ½-oz. & 1-oz. Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. &
STYPTIC COLLOID,
or promoting the Healing of Wounds by the first intention
In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.
CHARCOAL CAPSULES,
Containing Pure Vegetable Ivory Charcoal.
In Boxes, 2s. 6d. each.

ANGLO-NORWEGIAN COD-LIVER OIL

SEASON 1888.

Samples and quotations on application.

EVANS, LESCHER & WEBB,

60 Bartholomew Close,
LONDON.

PARIS, SYDNEY, ETC.

AGENTS:

JAMIESON & CO., Produce Exchange, Sussex St., Sydney.

Their Export Lists, Spanish and English, form an excellent advertising medium for Proprietaries. Circulated to the Trade in every quarter of the Globe.

DINNEFORD'S FLUID MAGNESIA



PERFECT IN PURITY AND UNIFORM IN STRENGTH.

The most efficacious antacid and mild aperient for Delicate Constitutions.
Ladies, Children, and Infants.

OF ALL WHOLESALE DRUGGISTS.

HENRY AYSCOUGH THOMPSON & SON,

WHOLESALE AND EXPORT DRUGGISTS,
22 WORSHIP STREET, FINSBURY SQUARE, LONDON.

LIQUOR SENNAE DULC. (MOIR'S).
LIQUOR RHEI DULC. (MOIR'S).

(SOLE MAKERS OF THESE PREPARATIONS.)

CONCENTRATED INFUSIONS, DECOCTIONS, &c.

These Preparations are extensively used abroad, as they will keep good in any climate.

PRICE LISTS ON APPLICATION.

PILL BOXES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, | EVANS, SONS & MASON, LIM.
60 Bartholomew Close. | Montreal, Toronto, and Victoria,
British Columbia.

DENOUL'S MEDICINAL CAPSULES

ARE THE BEST AND CHEAPEST

Attention is called to the following articles:

MEDICINAL

CAPSULES.

Peruvian Mixture Capsules.....
Matiao Oil and Copaiba do.....
Santal Oil do. (8s in each box).....
Cubeb Oil and Copaiba do.....
Copaiba, Cubeb Oil, and Santal Oil do.....
Copaiba Capsules, No. 0.....
" " " No. 1.....
" " " No. 2.....
Copaiba, Alum and Cubebs.....
Compound Ferruginous.....
Male Fern Oil.....
Cod Liver Oil.....
Castor Oil.....
Denoual's Injection (to insure a radical cure in two days).....
ALL DRUGS WARRANTED TO BE GENUINE.

JULES DENOUL,
Carlton House, 4 New Cross Road, London, S.

WYLEYS' GELATINE-COATED OVAL PILLS.

ENGLISH MANUFACTURE.

MANUFACTURED FROM SELECTED DRUGS IN OUR OWN LABORATORIES.

SPECIAL QUOTATIONS FOR CHEMISTS' OWN SPECIALITIES

PEPULAR COMBINATIONS SELECTED FROM OUR MORE COMPLETE LIST.

[4 Special List containing numerous other examples will be forwarded free on application.]

Gross Bots.		Gross Bots.		Gross Bots.	
Acid. Ajenios, $\frac{1}{60}$ gr. ...	1s. 6d.	Exsic., 1 gr.; Ext. Hellebor., 1 gr.; Ol. Sabinæ, $\frac{1}{2}$ m.; Ext. Aloes Soc., 1 gr. ...	2s. 6d.	Hydrarg. Iodid. Rub., $\frac{1}{16}$, $\frac{1}{8}$, $\frac{1}{4}$ gr. ...	1s. 8d.
Acid. Ajenios, $\frac{1}{60}$ gr.; et Ferr. Redact., 1 gr. ...	1s. 8d.			Hydrarg. Iodid. Virid., $\frac{1}{2}$, 1 gr. ...	1s. 8d.
Aloes e Ferri, 4 and 5 gr. ...	1s. 4d.	Ferri Hypophosph. Comp. (Wyleys'). Each pill represents one fluid drachm of Syrup of the Hypophosphites, and contains iron, lime, soda, potash, manganese, quinine, and strychnine in combination with hypophosphorous acid ...	2s. 6d.	Manganese Binoxid. Pur., 2 gr. ...	2s. 6d.
Antibiosis. R. Ex Coloc. Co., 2 gr.; Pil. Hydrarg., 2 gr.; Ext. Hyoscyami, 1r. ...	2s. 4d.			Pepsin Porci, 3 gr. ...	6s. 0d.
Bismuth. Pepsin. Co. (Wyley), R. Bismuth. Nit., 2 gr.; Bism. Porci, 1 gr.; Ferr. Redact. 1 gr.; Strychnin, $\frac{1}{4}$ gr. ...	3s. 6d.	Ferruginous (Blaud's), 3 and 5 gr. ...	1s. 8d.	Phosphorus, $\frac{1}{30}$; Ext. Nuc. Vom., $\frac{1}{4}$ gr. ...	2s. 0d.
Calci. Sphid., $\frac{1}{10}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1 gr. ...	1s. 8d.			Phosphorus, $\frac{1}{30}$; Quininæ Sulph., 1 gr.; Ext. Nuc. Vom., $\frac{1}{4}$ gr. ...	3s. 6d.
Cascara Sagrada (Ext.), 2 gr. ...	2s. 0d.	Ferri Quininæ et Strychninæ Phosph. (Wyleys'), representing Easton's Syrup, each pill being equivalent to phosphate of iron, 1 gr.; phosphate of quinine, 1 gr.; phosphate of strychnine, $\frac{1}{32}$ gr. ...	3s. 0d.	Podophyllin Resin, $\frac{1}{4}$ gr.; Pil. Rhei Co., 4 gr. ...	2s. 0d.
Cathart. U. S. P. ...	2s. 6d.			Potass. Permang., 1 gr. ...	1s. 10d.
Colchic. Acet. Ext., $\frac{1}{4}$ gr.; P. Ipecac. Co., 4 gr. ...	2s. 6d.			Quininæ Sulph., 1 gr. ...	2s. 2d.
Coloc. e Hyoscyam., 4 and 5 gr. ...	1s. 10d.			" " 2 gr. ...	3s. 0d.
Digital. (Pulv.), 1 gr.; Pil. Hydrarg., 2 gr.; P. Scillæ, 2 gr. ...	1s. 8d.			Rhei Co., 4 and 5 gr. ...	1s. 6d.
Ergotin Comp. R. Ergin, 1 gr.; Ferri Sulph. ...				Tic Douleureux R. Ferri Redact., 2 gr.; Chinoquinæ, 1 gr.; Ext. Colchic. Acet., 1 gr.; Ext. Belladon., $\frac{1}{4}$ gr. ...	3s. 0d.

MEDICAL OPINIONS.

TALFORD JONES, Esq., M.B., Lond., &c., Honorary Consulting Physician (late Physician) to the Breconshire Infirmary: "During the past two years I have frequently prescribed your gelatine-coated oval pills, and I have formed a high opinion of them. I believe them to possess every good quality, and I am not acquainted with any made in England that are in form, appearance, and efficacy equal to yours."

COOPER H. CRAWFORD, Esq., M.D., Senior Physician, Stafford Infirmary: "I have frequently prescribed Messrs. Wyleys & Co.'s pills, both plain and coated; they are very beautifully and carefully made, and I have always found them to act very well."

J. FAIRER, Esq., M.R.C.S.E., L.S.A., &c., BRACKLEY, writes: "I consider them to be a great boon to the profession who have to prescribe them for more than a year and a half, and have had every reason to be satisfied with the accuracy and speediness of their action. Your list of formulæ is comprehensive and well selected, and I firmly believe the ingredients used are of the best in quality and strictly reliable."

W. CAWELL, Esq., L.R.C.P., Edin., L.R.C.S., Edin., &c., WELLINGTON, says: "Having used your gelatine-coated pills for some years I cannot speak too highly of their effective qualities and beautiful appearance."

H. R. JACOBS, Esq., L.R.C.P., M.R.C.S.E., &c., CULWORTH: "I can fully testify as to their handsome appearance and increased efficacy, owing to their being more readily dissolved in the stomach, and thus, in many cases, more suitable than the ordinary pearl-coated pills."

W. E. GREEN, Esq., M.R.C.S., Eng., L.S.A., &c., SANDOWN, Isle of Wight: "They are a perfect form for taking nauseous medicines."

JOHN CLARK, Esq., M.R.C.S., L.S.A., &c., KENILWORTH: "They present a beautiful glazed appearance, and I have no reason to doubt their efficacy, as your drugs supplied to me for the past thirty-five years have given me every satisfaction."

HERBERT C. P. MASSER, Esq., M.R.C.S., Eng., L.S.A., &c., LONGFORD: "They are very elegant preparations, readily soluble, tasteless, transparent, and in every respect their efficacy can be entirely depended on."

J. B. UNWIN, Esq., L.R.C.P., &c., DUNCHURCH: "The gelatine-coated pills manufactured by Messrs. Wyleys & Co. are undoubtedly an improvement upon anything of the kind yet produced, and all the usual difficulties of taking medicine in the form of pills ought now to be entirely removed."

Sole Manufacturers of the PATENT COATED DURAPLASTIC HORSE-BALLS.

WYLEYS & CO., Manufacturing Chemists, COVENTRY.

LONDON: 1a BURY STREET, ST. MARY AXE, E.C.

HOMŒOPATHIC MEDICINES

Supplied direct or through the **PATENT MEDICINE HOUSES.**

SMALL QUANTITIES ARE CONVENIENTLY SENT BY PARCEL POST.

For Illustrated Guide and Prices apply to

JAMES EPPS & CO., Homœopathic Chemists
(FIRST ESTABLISHED),
48 THREADNEEDLE STREET, LONDON

MENTHOL CONES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB,

EVANS, SONS & MASON, LIM.

60 Bartholomew Close.

Montreal, Toronto; and Victoria,
British Columbia.

HOLLOWAY'S PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor **HOLLOWAY'S** Establishment,

78 New Oxford St. (late 533 Oxford St.), London,

And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or

Chemists and Druggists selling "Holloway's Pills and Ointment" on application to the above address, or to the Wholesale House with which they deal, be supplied free of charge with Handbills and Posters with name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents

INDEX TO ADVERTISEMENTS

See pages 29-31.

WITHOUT A RIVAL

From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find **BEECHAM'S PILLS** the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand every year.

The words "**BEECHAM'S PILLS, SAINT HELENS,**" are on the Government Stamp affixed to each box.

Prepared only and sold by the Proprietor, **THOMAS BEECHAM**
ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

GOLD MEDAL, International Health Exhibition, London.
HIGHEST AWARD, International Exhibition, Adelaide.

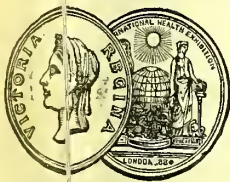
BENGER'S PREPARATIONS

OF THE

Natural Digestive Principles

AND

SPECIAL FOODS FOR CHILDREN AND INVALIDS.



THE LANCET, March 25, 1882:—"Mr. Benger's admirable preparations."

THE MEDICAL PRESS, June 13, 1883, says:—"Few modern improvements in Pharmacy have done so much as Benger's Preparations to assist the physician in his treatment of the sick."

THE PRACTITIONER, February, 1883, says:—"Deserving of the highest praise, and only require to be made known to the profession to ensure their extensive employment."

THE MEDICAL TIMES AND GAZETTE, September 8, 1883, says:—"Benger's Preparations have deservedly a very high reputation, and are all largely used."

THEY CONSIST OF—

1. Liquor Pancreaticus (Benger).

Containing all the digestive principles of the fresh pancreas. Used to prepare peptonised or partially digested milk and other articles of food (no apparatus beyond a jug and a saucepan required). Directions for use with each bottle.

In 4, 8, and 16 ounce Bottles, to retail at 2s. 6d., 4s. 6d., and 8s. 6d.

BENGER'S PEPTONISING POWDERS (*"Pulvis Pancreaticus Alkalinus, Benger"*).

It will peptonise a pint of milk, gruel, beef tea, &c., in fifteen minutes. Box of 12 Powders, to retail at 2s. 6d.

2. Liquor Pepticus (Benger).

An exceedingly active Fluid Pepsine. Dose—One or two teaspoonfuls with meals.

"The Liquor Pepticus prepared by Mr. Benger is a digestive agent of extraordinary power."—Sir W. ROBERTS, M.D., F.R.S., at Northwich Meeting of British Medical Association.

In 4, 8, and 16 ounce Bottles, to retail at 3s., 5s. 6d., and 10s. 6d.

PEPSIN (BENGER). In tasteless coated pills. Dose, one with each meal; convenient where great portability is essential. In bottles containing 25, 50, and 100 Pills, to retail at 2s. 6d., 4s. 6d., and 8s. 6d.

3. Benger's Peptonised Beef Jelly.

A DELICIOUS QUICK RESTORATIVE—WILL KEEP IN ANY CLIMATE.

A concentrated partially digested and solidified beef tea, of delicate flavour. Unlike the various Extracts and Essences of Meat it contains much of the fibrin or flesh-forming element of the beef in solution. Tins, 2s.

4. Benger's Food. For Infants, Children, and Invalids.

Containing the natural digestive principles of the pancreas; when mixed with warm milk a process equivalent to partial digestion takes place, by which both the food and milk are adapted for rapid absorption.

In other food has this result been attained. It can therefore be taken with comfort when all others disagree.

Tins, 1s. 6d., 2s. 6d., and 5s.

DESCRIPTIVE CIRCULARS AND SHOW CARDS ON APPLICATION.

Benger's Preparations may be obtained through BARCLAY, EDWARDS, SANGER, SUTTON, NEWBERRY, and all the leading Wholesale Houses, or of the Manufacturers—

MOTTISHEAD & CO. (S. PAINE & F. B. BENGER),
Pharmaceutical Chemists, MANCHESTER.

It is guaranteed that one glass of Liebig's Beef Wine contains more Nourishment and Strength than ten glasses of any other Wine

JUSTLY FAMOUS FOR ITS HEALTH-
GIVING QUALITIES.

Prize Medals Awarded—Liverpool and Glasgow, 1886 & 1887.



NO WINE LICENCE NECESSARY FOR ITS SALE.—See *Letter from Exch.*

Pints 2s. 9d., 2ls. per dozen; quarts 4s. 6d., 39s. per dozen. Write for samples.

SOLE MANUFACTURERS—

LIEBIG'S WINE CO. 66 and 68 Highfield Street, Liverpool, and 12 St. Helen's Place, London, E.C.

TOWLE'S CHLORODYNE

In **COUGHS, ASTHMA, BRONCHITIS, INFLUENZA, &c.** its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the Throat, promoting Expectoration, and speedily and effectually subduing the Cough.

It soothes the weary aching of **CONSUMPTION**, relieves the harassing Cough, and often prevents those sleepless nights so trying to the sufferer.

In **CHOLERA, DIARRHŒA, DYSENTERY, &c.**, it has proved itself a most valuable specific, quickly relieving the pain and spasms, and seldom failing to check the disease; for which property, as well as for its value in Sea Sickness (for which it is the best remedy known) it should be an indispensable article in every emigrant's outfit.

TESTIMONIALS.

"Superior to every other I have tried."

F. H. GREEN, M.R.O.S.,
Rockdale Dispensary.

"Peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections."—

ALFRED ASPLAND, F.R.C.S.,
Consulting Surgeon to Ash'on Infirmary.

"I have used it largely in Spasmodic and Painful Affections, Bronchitis, and Neuralgia. It has the property of being readily combinable in ordinary prescriptions—an advantage over all similar preparations."

R. TRAFFORD WHITEHEAD, M.R.C.S.

A Surgeon writes:—"In Diarrhoea, Colic, Ague, Spasms, I have found it relieve more pain and cause more joy than any other article that can be named. Has proved itself a specific against seasickness."

Island Bridge, Dublin.

"I am pleased to say that although I have not finished a quarter of the bottle (2s. 9d.) the pain has left my chest, and the cough is almost well."—J. BROWN.

Immediately Relieves

**COUGHS,
CONSUMPTION,
ASTHMA,
BRONCHITIS,
TIC,
SPASMS,
HYSTERIA,
DIARRHŒA,
DYSENTERY,
CHOLERA,
CRAMP, AGUE,
Sea-Sickness, &c.**

REVISED PRICE LIS

	Ret.	Per doz.
Towle's Chlorodyne	1	0 6 0
Ditto	2	1 16 0
Ditto (3 fluid oz.)	4	4 13 0
Ditto (8 ")	11	1 10 0
Li'l. Chlorodyni (<i>Original and only Genuine</i>) } lb. ..		2 14 0
Ditto ditto } lb. ..		4 16 0
Ditto ditto } lb. ..		
Winchester Quarts (6 lb) 7/6 per lb., bottles free.	1	0 8 0
Towle's Anthillious Pills	2	1 3 0
Ditto	10	0 6 6
Towle's Chlorodyne Lozenges }	1	0 8 6
Ditto Jujubes }		
Ditto in bulk, bottles free, containing		
1 lb., 2/9 each.		
Ditto ditto 1 lb. 10 oz., 4/6 "		
Ditto ditto 4 lb., 10/-		
N.B.—The Commissioners will allow them to be sold by the retailers without further duty, provided they are simply wrapped in <i>paper</i> , and not enclosed in a <i>box, bottle, or packet</i> .		
Thornton's Celebrated Toilet Cream	1	0 9 0
Ditto	1	0 14 0
Ditto	2	1 4 0
Ditto	2	1 4 0
Amholine (Registered Trade Mark)	2	0 9 0
The Thornton (Red) Lotion (Stamped)	1	1 4 0
Thornton's Pargon Hair Wash	2	
Ditto		

Posters, Bills, and Showcards on application.
£5 worth (assorted or otherwise) Carriage
7 lb. Lozenges and upwards stamped with
own name, free of charge.

free of charge.
A. P. TOWLE, SON,

75 BACK PICCADILLY,
MANCHESTER. *December, 1886*

**M.K.B.**

REGISTERED.

FINEST QUALITY TARTARIC ACID

CRYSTALS, POWDER, OR GAZOGENE CRYST.
BULL'S HEAD BRAND.

Warranted free from Sulphuric Acid (Free), Iron, Copper, and Lead.
Samples and Analyses on application.

MIDDLETON, KIRKPATRICK & BARR,
4 CULLUM STREET, LONDON, E.C.

ACID. ACETIC. B.P., ACID. ACETIC. 1.040. Pure for Vinegar and Peroxide of HYDROGEN, for Bleaching Feathers, Hair, Silk, Jute, Ivory, Bone &c.
CRETA PRÆCIP. Very White, Soft, and Light.

PHOSPHORIC ACID, B.P. strength and concentrated, Pure and Free from Arsenic.

LIQ. FERRI PERCHLOR. FORT., B.P. Free from Arsenic, and Soluble in Spirit.

HYPOPHOSPHITES of LIME, SODA, &c. CYANIDE of POTASSIUM.

Ferri et Ammon. Cit., Ferri et Quiniæ Cit., B.P., and other Scale Preparations.

DUNN & CO., Stirling Chemical Works, WEST HAM, LONDON.

MORRIS & CALLARD,

**PONTAMMAN CHEMICAL WORKS,
AMMANFORD, R.S.O., CARMARTHENSHIRE,**

MANUFACTURERS OF

ACETIC ACID, P.B., ACETIC ACID FORT, SP. GR. 1.000,

WHITE AND GREY ACETATE OF LEAD, ACETATE OF SODA,

PURE UNADULTERATED WOOD NAPHTHA, SULPHURIC ACID, AND CHARCOAL.

PRICES AND SAMPLES ON APPLICATION.

FEEDING BOTTLES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

EVANS, LESCHER & WEBB,

60 Bartholomew Close.

CANADA:

EVANS, SONS & MASON, LIM.

Montreal, Toronto, and Victoria,
British Columbia.

PELLETIER'S QUININE.

Sulfate de Quinine des trois Cacets,
Pelletier, Delondre et Levallant

SOLE AGENT—

CHAS. BRUMLEY,

7 Mincing Lane, LONDON, E.C.

CITRATE OF MAGNESIA.

IN THE SEASON OUR OUTPUT EXCEEDS

ONE TON PER DAY

and during the coming Summer we have every prospect of increasing this amount. We shall be happy to give prices on application.

SPECIAL QUOTATIONS TO LARGE BUYERS.

The following is one of the many Testimonials we receive:

90 Western Road, Brighton,

January 14, 1888.

MESSRS. FRIMER & Co.

GENTLEMEN,—We have pleasure in informing you that having tried the Citrate of Magnesia of all the makes that have been offered to us, taking Bishop's as a standard, we find yours to be the only one comparing favourably with the same, and that it quite equals, if not surpasses, it.

Yours truly,

HEADLAND & CO., CHEMISTS.

OUR NEW 1888 COD LIVER OIL

now in stock, QUALITY SUPERB. EACH CASK carefully selected from the choicest Norwegian Brands. PRICES LOWER than any previous season.

QUOTATIONS, IN BULK OR BOTTLED, ON APPLICATION.

We most strongly recommend Chemists to buy their NEW Oil bottled ready for supply it in all sizes, bearing customers' own labels when preferred, and guarantee it, when bottled by us, to remain sweet and fresh.

FRIMER & CO., BRITANNIA ROW, ISLINGTON, LONDON.

JAMES WOOLLEY, SONS & CO.

Drug Millers, Wholesale and Export Druggists,
AND
MANUFACTURING · PHARMACEUTICAL · CHEMISTS.

~ SPECIALITIES. ~

Spirit of Nitrous Ether.
Guaranteed of Official Strength.

Aromatic Spirit of Ammonia.
Distilled from Volcanic Ammonia.

Assayed Opium, Cinchona, and Scammony,
Their Powders and Preparations.

The "Extra Pale" Cod Liver Oil.
Free from fishy odour. Unchanged at 32° F.

Dalmatian Insect Powder.
From Unopened Flowers, free from added colouring matter.

Tasteless Coated Pills.
Soluble in cold water.

Pure Crushed Linseed.
Ground from Screened Seed.

Pure Yellow Beeswax, in Bars.
M.P. 149° F.

Soluble Essences of Ginger, Lemon &c.,
For flavouring Aërated Waters.

Emulsified Cod Liver Oil.
SEASON 1888.

With Hypophosphite of Lime.
Minerolin (Mineroleum)

A pure Hydro-Carbon Ointment Basis.

Levigated Ointments
By Steam Power.

DEALERS IN DRUGGISTS' SUNDRIES.

CHEMICAL AND PHARMACEUTICAL APPARATUS AND SURGICAL INSTRUMENTS.

PROPRIETORS OF

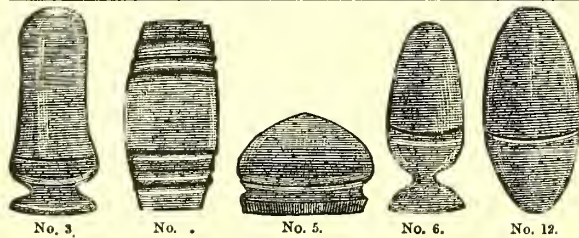
"The SANITARY ROSE POWDER," the "BOVAL" TOILET PREPARATIONS, &c.

Drugs and Chemicals Ground for the Trade.

Warehouse and Offices: 2 & 4 Swan Court, Market St.; Laboratories and Drug Mills: Knowsley St., Chatham,

MANCHESTER.

Prices Current and Catalogues on demand. Special quotations to large buyers. Telegrams—"PHARMACY MANCH" "ER."



MENTHOL CONES.

No. 6, Pillar Shape, Polished Whitewood Boxes	...	...	...
" 3, Pedestal " " Boxwood	...	...	...
" 4, Barrel " " "	...	...	...
" 5, Hat " " "	...	...	...
" 12, Egg " " "	...	...	...
Assorted C parcel (½ Gro.), 1 doz. No. 6, ½ doz. Nos. 3, 4, 5, 12	...	7/9	
" D " (½ " 2 " " " 2 " " " "	...	14/-	
" E " (1 " 2 " " " 2 " " " "	...	28/6	

THE CASTLE MENTHOL CO., 11 Farnival St., LONDON.
Holborn,

HOUSEHOLD REQUISITES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.
CANADA: EVANS, SONS & MASON, LIM. Montreal, Toronto; and Victoria, British Columbia.

TOILET REQUISITES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.
CANADA: EVANS, SONS & MASO LIM. Montreal, Toronto; and Victoria, British Columbia.

London International and Universal Exhibition, 1884, Gold Medal Awarded for our Pharmaceutical Preparations.
Calcutta Exhibition, First-class Certificate and Two Prize Medals Awarded for our Pharmaceutical Preparations.

HEWLETT'S MIST. PEPSINÆ CO. C. BISMUTHO.

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic gastric pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epistrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, anti-dyspeptic, and tonic in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked and appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsinæ Co. c. Bismutho, by writing Mist. Pepsinæ Co. (Hewlett's).

Packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

LONDON MEDICAL RECORD REPORT.

MISTURA PEPSINÆ COMPOSITA CUM BISMUTHO.

"This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular in the profession as a very valuable and effective combination. It serves not only to improve *apepsia*, but to lessen the gastric pain and to facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of weak stomach to lean on."—January 15th, 1881.

C. J. HEWLETT & SON,

MANUFACTURING AND PHARMACEUTICAL CHEMISTS,

40, 41 & 42 CHARLOTTE STREET, LONDON, E.C.

[Established 1832.]

London International and Universal Exhibition, 1884, Gold Medal Awarded for our Pharmaceutical Preparations.
Calcutta Exhibition, First-class Certificate and Two Prize Medals Awarded for our Pharmaceutical Preparations.

HEWLETT'S LIQ. SANTAL FLAV. c. BUCHU et CUBEBA

THE ORIGINAL PREPARATION.

Price (in England) 10s. 6d. per pound, packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

HEWLETT'S "PERMANENT" LIQUOR FERRI IODIDI. LIQUOR EASTONI (HEWLETT'S). SYRUP EASTONI (HEWLETT'S).

C. J. HEWLETT & SON, Manufacturing and Pharmaceutical Chemists, LONDON, E.C.
40, 41, & 42 CHARLOTTE ST.,
ESTABLISHED 1832.

Physicians will oblige, when ordering Liq. Santal Flav. cum Buchu et Cubeba, by writing "Liquor Santal Flav. c. Buchu et Cubeba (Hewlett's)."

INJECTION DAY

An Infallible Remedy and Certain Cure

IN ALL

URINARY DISCHARGES.

BOTTLES 2/6 EACH.

Depot: J. MUNDAY, Chemist, Cardiff.

London: F. NEWBERY & SONS, 1 King Edward St., E.C.

Melbourne—FELTON, GRIMWADE & CO.; ROCKE,
TOMPSITT & CO. Sydney—ELLIOTT BROS.

The Mormon Elder's DAMIANA WAFERS

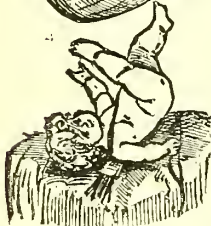
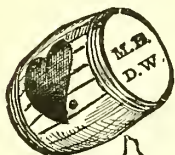
THE MOST POWERFUL
INVIGORANT
EVER PRODUCED.

Permanently restores those weakened by early indiscretions, imparts youthful vigor, restores vitality, strengthens and invigorates the BRAIN AND NERVS. A positive cure for IMPOTENCY and Nervous Debility. *Prompt, Safe, and Sure.* 4/6 per box, 6 for 22/6. Usual discount to the Trade. Send for Circular.

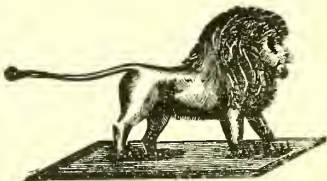
F. B. CROUCH,

202 Grand Street, New York City;
London Depot, 51 Strand, W.C.

Hovenden & Son, Sanger & Son,
Barclay & Sons, Edwards & Son, and
all Wholesale Druggists.



TRADE MARK
REGISTERED
OVER ALL THE
GLOBE.



Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation. Photographs of Cases Cured, neatly framed for exhibition, Transparencies, Bills with Name, &c., forwarded direct or through any Wholesale. Plenty of Advertising Matter supplied to Chemists willing to push the sale.

SPECIAL NOTICE TO AUSTRALIAN CHEMISTS.—Messrs. Lynch & Co., of Melbourne, have in a supply of these remedies, one box of which will ensure a sale by proof of efficacy.

The Ointment is put up in air-tight grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes also retain their virtue for years. **Prices, 1s. 1d., 2s. 9d., 4s. 6d., 11s., and 22s each. Usual Wholesale Terms.**

E. BURGESS, 117 High Holborn, and Kingsgate Street, LONDON, W.C.

DR. HENRY'S

TIGER BRAND.

Chlorodyne



SOLE AGENTS,

TRADE MARK.

THOMAS, WAKEHAM & CO.

Manufacturers,

86 to 88a Leadenhall Street, LONDON, E.C.

SOLD IN BOTTLES AT 1/1½ EACH.

Good Discount to the Profession.

Also in bulk for Dispensing purposes at 6/ per lb. net.

DR. LALOR'S PHOSPHODYNE



For TWENTY-FIVE YEARS has maintained its world-wide reputation as THE ONLY SAFE RELIABLE PHOSPHODYNE ever discovered. Permanent Cure of Brain Wreckage, Sleeplessness, Harassing Dreams, Decay of Vital Power, and all Functional Diseases Conditions of the System dependent upon the Deficiency of the Vital Force. Cures Dyspepsia, Nerve and Liver Disease. Cures Kidney and Liver Complaints. Cures all Blood Disorders. Cures Consumption and General Debility. Checks all Wasting of the Vital Power from whatever cause arising. THE EFFECT of this Standard Phosphodyne Remedy in Nervous Debility and its Evis is Immediate and Permanent. The Miserable Feelings and Distressing Symptoms disappearing with a rapidity REALLY MARVELLOUS.

DR. LALOR'S PHOSPHODYNE

HEALTH, STRENGTH, AND ENERGY.

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Mark Act.

THOUSANDS of unimpeachable Testimonials from all parts of the world, and from the highest Medical Authorities, prove conclusively the Universal that in the World of scientific research no other Phosphodyne has received such exalted praise and distinguished recognition.

Full Printed Directions for the guidance of Patients in the Self-Treatment of the above Diseases are enclosed with each Bottle. Sold in bottles at 4s. 6d. and 11s. by all Chemists throughout the World.

MANUFACTURED ONLY AT

**DR. LALOR'S PHOSPHODYNE
LABORATORY,
HAMPSTEAD, LONDON, N.W.**

E. BURGESS' LION OINTMENT AND PILLS

Cure the worst and most obstinate cases of Ulcers, Abscesses, Cancers, Tumours, Carbuncles, Piles, Poisoned Wounds of all kinds (including Dog and Venereal bites), and every form of Eruption and Skin Disease; also Ulcerated and Cancers. Affections peculiar to Females, without the aid of Lancet or Knife.

Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation. Photographs of Cases Cured, neatly framed for exhibition, Transparencies, Bills with Name, &c., forwarded direct or through any Wholesale. Plenty of Advertising Matter supplied to Chemists willing to push the sale.

SPECIAL NOTICE TO AUSTRALIAN CHEMISTS.—Messrs. Lynch & Co., of Melbourne, have in a supply of these remedies, one box of which will ensure a sale by proof of efficacy.

The Ointment is put up in air-tight grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes also retain their virtue for years. **Prices, 1s. 1d., 2s. 9d., 4s. 6d., 11s., and 22s each. Usual Wholesale Terms.**

E. BURGESS, 117 High Holborn, and Kingsgate Street, LONDON, W.C.

PLASTERS

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close.
CANADA: EVANS, SONS & MASON, Montreal, Toronto, and Victoria, British Columbia.

DUNCAN, FLOCKHART & CO.

Wholesale and Export Druggists,

EDINBURGH.

CHLOROFORM

(DUNCAN'S).

PREPARED FROM PURE AND METHYLATED SPIRIT.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached), and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.

CHLORIC ETHER

(DUNCAN'S).

This is a Special Preparation, quite different from Spir. Chloroformi, B.P., perfectly miscible with water, and always of the same strength.

CASCARA SAGRADA CAPSULES,

In Boxes, at 1/6 and 2/6. 11/- and 21/- per dozen.

Each Capsule equal to half a teaspoonful of Fluid Extract of Cascara Sagrada. The chief drawback to the use of this valuable drug, its unpleasant bitterness, is obviated when taken enclosed in Capsules.

SYR. HYPOPHOS. CO.

(DUNCAN'S).

Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations.

(Our Fluid Extracts and Concentrated Infusions are Prepared by a Special Process, whereby their Therapeutic Properties are fully retained.)

WHITE GUTTA PERCHA FOR STOPPING TEETH,

In 6d. and 1s. Boxes.

ESSENCE OF RENNET,

For making Curds and Whey. A thoroughly Reliable Preparation, warranted to keep for years in any climate.

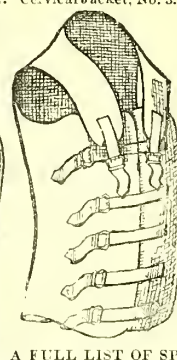
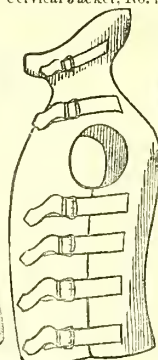
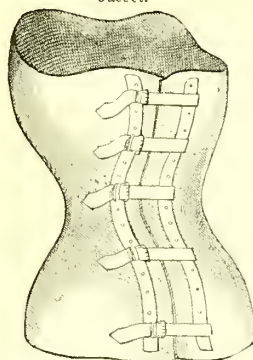
In Bottles, Price 6d. and 1s.

COCKING'S ADAPTABLE PORO-PLASTIC JACKETS AND SPLINTS.

Patentee and Sole Manufacturer, J. T. COCKING, PLYMOUTH.

Jacket.

Cervical Jacket, No. 1. Cervical Jacket, No. 3.

INSTRUCTIONS
FOR MEASUREMENT.

JACKET

(in cases of slight deformity)

Circumference at axilla.

" " waist.

" " hips.

Length from axilla to great

trochanter.

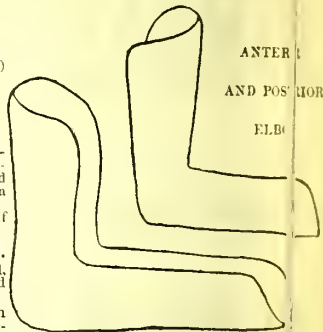
In severe angular cases circumference over apex of curve, position of ditto, and contour should be given; in lateral cases a description of the case.

In all cases it must be stated if for male or female.

CERVICAL JACKETS.

Same measurements required, and circumference at neck, and length from neck to axilla.

Any part of the Jacket can in the process of manufacture be left soft.



ANTERIOR

AND POSTERIOR

ELBOW

A FULL LIST OF SPLINTS AND PORO-PLASTIC IN SHEETS MAY BE HAD ON APPLICATION

C. R. HARKER, STAGG & MORGAN

WHOLESALE & EXPORT DRUGGISTS

MANUFACTURING CHEMISTS

DISTILLERS & IMPORTERS of ESSENTIAL OILS

STANDARDIZED AND GUARANTEED DRUGS AND PREPARATIONS FOR
HOME AND EXPORT TRADE.

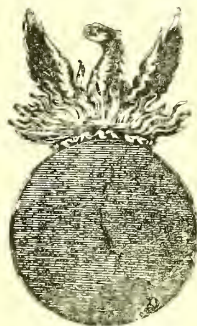
TEMPORARY PREMISES—

72 and 74 GOLDEN LANE, BARBICAN, LONDON, E.C.

REGISTERED ADDRESS FOR TELEGRAMS—"EDULCINE LONDON."

C.R.H.S.
TRADE MARK

COLTHURST & HARDING,

BALL DENOTES
COLOUR OF PAINT.

BRISTOL—Manufactories: Phoenix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phoenix Bristol."

LONDON—Manufactory: Alpha Works, Millwall, E.C. City Office: 16 Fish Street Hill, E.C. Telegrams: "Alpha Brand London."

HARD LUSTROUS ENAMEL,
IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE,
PAINTS & COLOURS OF ALL KINDS.MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.

HIGH-CLASS VARNISHES

Of all kinds, for Coachbuilders, Decorators &c.

OIL BOILERS, REFINERS & MERCHANTS
Export Orders receive special and prompt attention.

SMELLING BOTTLES

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:

EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:

EVANS, SONS & MASON, LIM.
Montreal, Toronto, and Victoria,
British Columbia.PURE
SPIRITS OF WINE.

60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/ per Gall. Discount for Cash with order.

Further allowance for quantity. STEAM STILL ONLY.

GEORGE PHILLIPS & CO.,
ST. ANDREW'S DISTILLERY, CLERKENWELL RD.
LONDON, E.C.

TOOTH BRUSHES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:

EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:

EVANS, SONS & MASON, LIM.
Montreal, Toronto, and Victoria,
British Columbia.

BLOOD MIXTUREJ. BEEDZLER & CO.'S
LONDONJ. BEEDZLER & CO.'S
LONDONThe OLDEST and GENUINE.
ONE HUNDRED YEARS' REPUTATION.

Small size, 1/1½; 3 dozen for 24/-

Large size, 2/9; 1 dozen for 20/-

ALMILAJ.

The REMEDY by SPECIALITY. PREVENTIVE and CURATIVE.

For Cholera, diarrhoea, Dysentery, Dyspepsia, Gastralgia, Colic, & all Catarrhal Affections of the Bowels. For Coughs, Colds, Influenza, Bronchitis, Asthma, & all Catarrhal Affections of the Lungs. For Hay Fever, Intermittent Fever, Ague, Neuralgia, & all ailments caused by adverse weather influences.

ALMILAJ is a concentrated medicinal preparation, composed of a specially-designed combination of vegetable products of long-tested and fully-established curative efficacy in the class of diseases above enumerated, and has been largely used in India with the most successful results. This preparation, as well as the name it bears, is the invention of Major-General H. W. BELLEW, C.S.I., Bengal Army (retired), lately, for ten years, Sanitary Commissioner for the Punjab Province; Author of "The History of Cholera in India from 1862 to 1881," and of "A Practical Treatise on the Nature, Causes, and Treatment of Cholera" (TRUBNER & Co., London), &c., and has been specially devised as a Preventive and Curative Remedy in the class of diseases indicated, with the object of supplying a convenient and ready means of treatment, available for immediate use on the spur of emergency. For it is a well-known fact that the prompt and timely treatment of such diseases on the very first appearance of their symptoms—particularly in times of their epidemic prevalence—commonly suffices to check their progress altogether, especially when the action of medicine is aided by proper self-care and attention to clothing and diet, as is fully explained in the Practical Treatise on Cholera above mentioned.

For the purposes of the object stated, ALMILAJ is prepared in a concentrated liquid form, suitable for administration to sufferers of all ages, in small doses apportioned to age and strength without the necessity of any admixture whatever. The doses range from a drop or two for Infants, to forty drops, the full dose for an Adult. The Medicines are prepared with special provision to ensure the preservation of its composition and therapeutic properties for an indefinitely long period under ordinary care, and is put up in six-ounce and twelve-ounce bottles, for convenience of portability about the person when travelling or away from home, &c. For facility of measuring the larger doses, each bottle is graduated in twelve parts, each part containing the full dose for an Adult.

Price 2s. 9d. per Bottle. Observe the word ALMILAJ is printed on the Government Stamp.

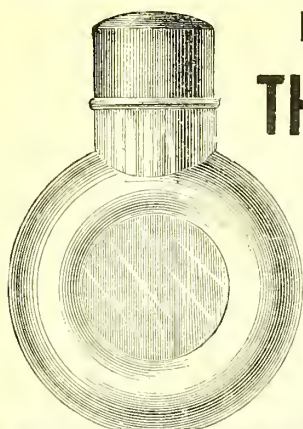
Sold by Chemists and Druggists everywhere, and Wholesale by Messrs. BURGOYNE & CO., 16 Coleman Street, London, E.C.; and by the Sole Manufacturer, L. MERCS, 159 EUSTON ROAD, LONDON, N.W.

THE

HOP BITTERS COMPANY

(LIMITED)

Have introduced a 2/6 size Bottle,
which is in great demand.Send to your Wholesale Dealer for
price, and put in Stock.RETAIL PRICES in FUTURE,
2s. 6d. & 4s. 6d.



EXTRAORDINARY CHEAP LINE!!! THE WATCH SMELLING-SALT BOTTLE

PLAIN OR FLUTED.

These Bottles are fitted with BEST SCREW NICKEL CAPS, lined with Washers and are the most wonderful value ever offered. A trial order will prove this fact.

PRICE, IN BEST WHITE FLINT OR ASSORTED COLOURS, **12/6** PER GROSS in not less than 1 gross

Orders may be sent through any of the Wholesale Houses, or direct to

E. A. HEARN & CO., Manufacturers of Glass Bottles of every description.

381-3 KINGSLAND ROAD, LONDON, E.

The annexed Illustration shows exact size of above-mentioned Bottle.

PRIZE MEDAL,
International
Health Exhibition,
1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

AWARD OF MEDAL,
International
Sanitary Exhibition,
1881.

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, THE LONDON SAND-BLAST WORKS, 80 GRAY'S INN ROAD, W.
TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

REGISTERED

THE
DISPENSING

Indentors should order the
metal and make in the market;
Can be obtained through any



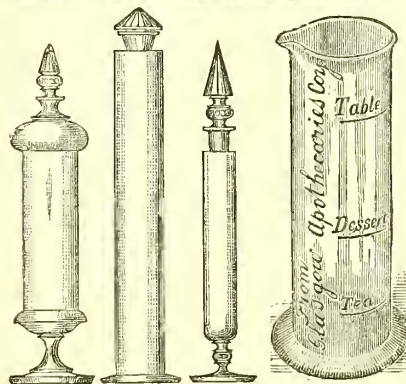
TRADE MARK

BRAND
AND OTHER BOTTLES

W brand; they are the best
have a worldwide reputation
Wholesale House.

J. DUNLOP MITCHELL & CO.,

130 & 138 Ingram St., Glasgow; & Old Trinity House, Water Lane, London, E.



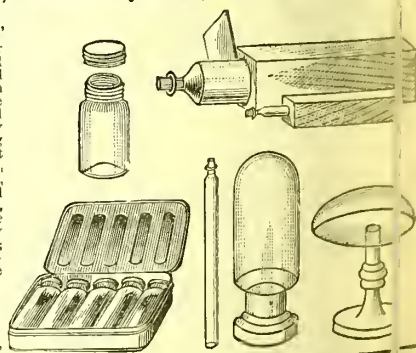
Sample Bottles, Vials and Tubes,
Wooden Post Cases, Corrugated Paper
and Cardboard Boxes, Parchment and
Linen Sample Bags, Travellers' Metal and
Leather Pocket Sample Cases, fitted with
all kinds of Bottles and Tubes. Fine
Stopped and Unstopped and Metal
Screw Top Bottles. Large variety of Show
Bottles and Stopped Jars for exhibiting
specimens, suitable for Show and Post
Samples of Oils, Varnishes, Spirits, Paints,
Colours, Soaps, Chemicals, Drugs, Sugars,
&c., &c. Laboratory Glassware and
Utensils. Specialities Measuring Glasses,
as per diagram, Tea, Dessert, and Table
Spoonful, with name and address of any
Chemist neatly engraved on opposite side;
acts as a capital and permanent advertise-
ment; price 24s. per gross; named sample
gratis per post.

Correspondence solicited.

Samples or Illustrations on application.

Agents Wanted Abroad.

Telegrams: "MITCHELL GLASGOW."



BOTTLES

For quotations of all descriptions see Druggists'
Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:

EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:

EVANS, SONS & MASON, LIM.
Montreal, Toronto, and Victoria
British Columbia.

THE BEST BOTTLES AT THE LOWEST PRICES.

H. & CO. BRAND.

THE
ISLINGTON GLASS BOTTLE CO.

(H. HARRIS & CO., Proprietors),

153 UPPER THAMES ST., CITY, LONDON, E.C.

HAVE REDUCED THEIR PRICES AS FOLLOWS:

3 and 4 oz., 6/6 per gross; 6 and 8 oz., 7/6 per gross; 12 oz., 11/6 per gross; graduated; White Moulded Fials, 1/2 oz., 3/6 per gross; 1 oz., 4/ per gross; 1 1/2 oz., 4/6 per gross; 2 oz., 5/ per gross; Feeding Bottle, The 2 1/2 oz., 4/ per gross; Black Fittings and Screw Stoppers, 3/6 per dozen, or 40/ per gross.

Prompt attention to Country Orders. A Sample Bottle of a kind forwarded free on application.

Established 50 years.

Bankers—London and Westminster.

KILNER'S
BOTTLES
LONDON.

KILNER'S BOTTLES

Having all the Latest Improvements for the Production of Bottles,
Cases, &c., can offer all
Kinds, Shapes, Sizes,
and Prices to
BUYERS.

That our BOTTLES are the BEST VALUE is SELF-EVIDENT from the FACT that they are

FOREIGN & COLONIAL BUYERS.

Most FAVOURABLY KNOWN IN ALL THE PRINCIPAL MARKETS of the WORLD.

BOTTLING AND CORKING MACHINES. FEEDING BOTTLES.

Correspondence cordially invited. Quotations & Samples sent by return.

SYPHONS.
In Azure Blue, Green, or Amber Glass,
In White or Blue Glass.

KILNER'S
BOTTLES
LONDON.

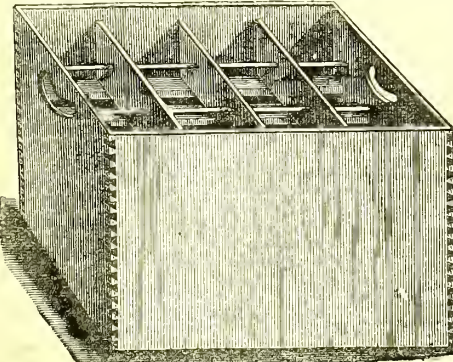


Catalogues and Price Lists sent free on application.

Catalogues and Price Lists sent free on application.

CORKS & STOPPERS
IN
ENDLESS VARIETY.

OUR LEDGE MOUTH BOTTLES ARE THE BEST.



VAN BOX CASES, TRAYS, ETC.

OUR CODD'S BOTTLES ARE THE BEST.

10. 3^A GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.

NEVER FAILING! SELF ADJUSTING!! PATIENCE SAVING!!!

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c

Prices—2 oz. 21/-, 3 oz. 24/-, 4 oz. 28/- per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the
PRINCIPAL WHOLESALE HOUSES.**R. H. BARRETT,**FLINT GLASS BOTTLE WORKS,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

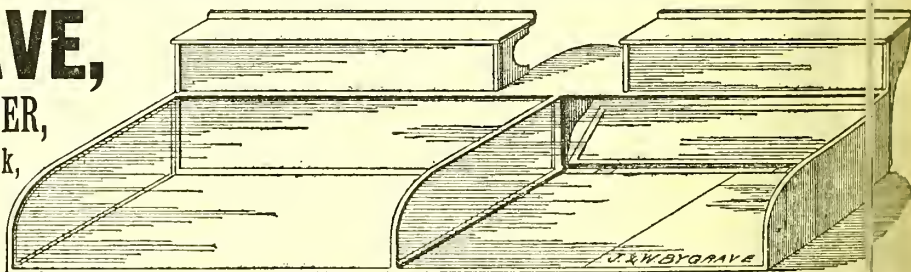
BYGRAVE,

SHOP FITTER,

111 Shepherdess Walk,

CITY ROAD,

LONDON, N.



Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—cash. if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.), £5 10s.; 5 per cent. off for cash.

MALDON CRYSTAL SEA SALT.

FOR BATHS.

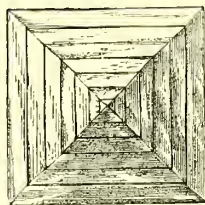
A PERFECTLY PURE SALT.

*Strongly recommended by the medical profession.***DIRECTIONS FOR USE.**

An ordinary teacup full to each Gallon of Water; dissolves more readily than any other Salt, and

REQUIRES NO FILTRATION.

CRYSTAL



COMPANY

Sole Manufacturers
THE MALDON CRYSTAL SALT COMPANYLondon Agents—
LYNCH & CO.,
ALDERSGATE STREET, E.C.

MALDON

9/6 per dozen 7-lb. Boxes Net.

SPONGES

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.

LIVERPOOL.

LONDON:

CANADA:

EVANS, LESCHER & WEBB, | EVANS, SONS & MASON, LIM.
60 Bartholomew Close. | Montreal, Toronto; and Victoria, British Columbia.

STODDART'S SEA SALT.

Established nearly 40 years. Registered Trade Mark.

INVALUABLE FOR RHEUMATISM AND WEAK

14d. Packets (in dozen boxes), 12s. per gross; 6d. or 2 lb. boxes, 1s. 2d. or 7 lb. boxes, 9s. 6d.; 2s. or 14 lb. boxes, 18s.; 4s. or 28 lb. bags, 14s. 8s. or 56 lb. bags, 72s. per dozen; 16s. or 112 lb. bags, 144s. All Proprietary Rights purchased March 15, 1886. Terms—Monthly 10 per cent.; a reduction on 5-cwt. and 10-cwt. lots. Carriage on orders amounting to £2 and upwards. Full directions for use on each box. Analysed and approved of by ARTHUR H. HASSALL, M.D., & OTTO H. SOLD BY CHEMISTS, PATENT MEDICINE DEALERS.

Wholesale London Agents, BARCLAY & SONS, 95 Farringdon Street, E.C.
Liverpool Agents, AYRTON & SAUNDERS, 149 Duke Street, E.C.
Manchester Agents, JAMES WOOLLEY, SONS & CO., 69 Market Street, E.C.

PROPRIETORS—

A. & J. WARREN,

Wholesale and Export Druggists, Importers of Finest Olive Oil, Makers of Methylated Spirit, Licensed

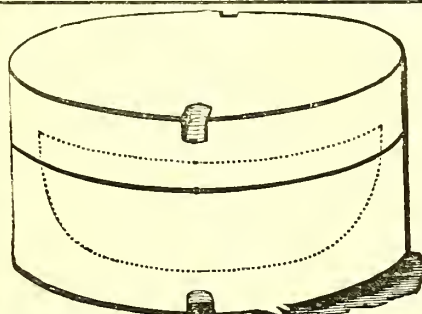
23 & 24 REDCLIFF STREET, B.F. & TOL.

WILLIAM TOOGOOD'S SPECIALITIES.

WAREHOUSE AND SHOW ROOM,
BURLINGTON BUILDINGS,
BEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S IMPROVED PATENT EARTHENWARE COVERED POTS

*Are claimed to be the most perfect
and convenient yet offered to the Trade.*



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—

1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6 per doz.

THIN for DISPENSING—

$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.
1/7	1/8	1/10	2/-	2/4	3/-	3/8	5/-	6/- per doz.

TOOGOOD'S BURT-IN POTS, FOR COLLEGE, TOOTH PASTE, &c.

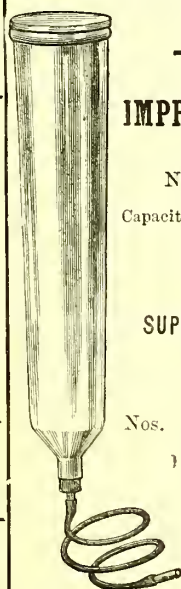
TOOGOOD'S GRADUATED MEASURES.

TOOGOOD'S BOXWOOD-TOP CORK BOTTLES

TOOGOOD'S MEXICAN SQUARES.

TOOGOOD'S CORN-SOLVENT BOTTLE.

TOOGOOD'S POISON BOTTLES.



TOOGOOD'S IMPROVED PERCOLATORS.

Nos. 1	2	3	4	5	
Capacity	12	25	66	100	160 ozs.
	2/	3/	4/6	6/	7/ each

SUPPORTS FOR ABOVE IN STAINED WOOD.

Nos. 1	2	3	4	5
	1/9	2/	3/	2/ 3/6 each.

NORMAN'S PATENT PILL COATER



The cheapest and most efficient machine yet introduced, combining simplicity with portability, and enabling small quantities of pills to be coated with the same facility as large.

It speedily saves its own cost.

Price 3/6 each.

AUSTRALIAN AGENCY AND SAMPLE ROOM:

MR. A. L. JOSEPH, 250 Pitt Street, Sydney.

Telegraphic Address: "TOOGOOD LONDON."

Telephone No. 3834.

William Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

IT WILL PAY YOU to send for Estimates to
BOWERS BROTHERS, 89 BLACKFRIARS ROAD, LONDON, E.
10,000 Good Effective Handbills, 7½ in. by 5 in. ... from 126 Memorandums ... per 1,000 fr 5 6
Superfine Fly Leaf Note Paper ... per ream 8/- Superfine Envelopes, name on flap ... per 1,000 5 6
A UNIQUE ADVERTISEMENT—CHILDREN AND THEIR AILMENTS: HOW TO CURE. A BOOK FOR MOTHERS.
Seed, Powder, Cash, Prescription and Recipe Envelopes in all qualities and in every style of printing, Counter and Show Bills, Trade Catalogues, Price
Business Circulars, and Ornamental Advertising Books at most moderate charges. Specimens and Estimates free. Terms—Cash with Order.
DON'T ORDER BEFORE SEEING BOWERS' TOILETTE GUIDE AND CALENDAR—CHEAP, GOOD, USEFUL.
Special Pamphlet prepared for efficient Advertising. New and Elegant Designs in Types and Ornaments for effective Advertising.

POROUS PLASTERS

(STRENGTHENING, BELLADONNA,
AND ALL KINDS.)

ADHESIVE, BELLADONNA, MUSTARD, CORN, AND ALL OTHER PLASTERS.
Prepared for all Climates by **A. DE ST. DALMAS, LEICESTER,** Maker to the British
Government and the Hospitals

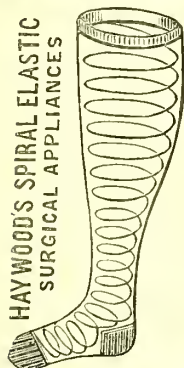
THE SURGEONS' LINT, V.B. QUALITY.

The superior quality of NEWSOME'S ABSORBENT SURGEONS' LINT is universally admitted
The V.B. Quality is quite pure and of great superficial area and exquisite softness.
The C., D., E., and F. Qualities are equally pure and absorbent; E. is stronger in fabric.
Newsome's Bleached Rolled Bandages, 3 in., 2½ in., 2 in. Also Surgical Absorbent Open Bandes.
Specially Bleached and Grey Carded Cotton Wools, Absorbent and Bleached and Grey Waddings
also Sheet Waddings, Tow, &c.

THE TRADE SUPPLIED THROUGH THE LONDON AND PROVINCIAL WHOLESALE HOUSES, OR FROM
C. NEWSOME, Spinner and Manufacturer, Jersey Street Mills, Ancoats, **MANCHESTER.**
London Agents: B. PRATT & CO., Wood Street, E.C.
Telegraphic Address—"Newsome, Ancoats," Manchester.

HAYWOOD'S PATENT SURGICAL APPLIANCE.

STOCKINGS, SOCKS, LEGGINGS, &
MADE ON ENTIRELY NEW PRINCIPLES.



WINTER APPLIANCES.— Chest Protectors. — 1st,
Knitted, Fleecy Chamois Vests, Drawers, &c.—Socks for Boot
Straw, Magnetic, &c., for Rheumatics, in Wool. Eel Skin,
Belts, Cuffs, Respirators, Inhalers, Bronchitis Kettles, Sprays,
Water Bottle Covers, Stomach Warmers, Magnetic Belts, &c. War-
proof Coats, &c. Shin Guards. Lists on application.

J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.

Established
1843.

THOMPSON & CAPPER, Established
WHOLESALE & EXPORT HOMŒOPATHIC CHEMISTS, 184

55 BOLD STREET, LIVERPOOL,

And (late HENRY TURNER & CO.)

51 PICCADILLY, MANCHESTER

ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER'S DENTIFRICE WATER.

Sells well everywhere, its beneficial qualities being attested to by physicians in all parts of the world. (See Testimonials.)

In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

Wholesale Agents for the Dominion of Canada:—EVANS, SONS & MASON, Limited, MONTREAL
98

L I N T.

THE ORIGINAL TAYLOR'S PATENT SUPER A1 FLAX LINT (INVENTED 1850)

THE LINT, unequalled by any other, has been before the Public for about Thirty Years, during which it has been most extensively used in the British Army and Navy, in a large number of British and Foreign Hospitals, and by the Medical Profession generally.

Its advantages are that, being made from fine Flax Fibre, it is perfectly free from all impurities, and, for Surgical purposes especially, is infinitely superior to Lint made from any other material.

Manufactured by W. G. TAYLOR, Charford Mill, BROMSGROVE.

SOLE WHOLESALE AGENTS—

MESSRS. S. MAW, SON & THOMPSON, LONDON.

CAUTION.

TAYLOR'S PATENT SUPER A1 FLAX LINT

Is produced only by the Patentee,

W. G. TAYLOR, Charford Mill, BROMSGROVE.

Packages having the Patentee's Signature alone are genuine.

W. G. Taylor

W. G. TAYLOR begs to inform the Trade that he is the Sole Manufacturer of the above celebrated Lint, and that he has no connection whatever with any other maker. Supplied WHOLESALE, direct from the Works; or by—

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street, LONDON, E.C.

Taylor's Super A1 Flax Lint,

3s. 8d. per lb.

Maw's Super Quality Surgeons' Lint

2s. per lb.

Maw's Superior Hospital Lint,

1s. 9d. per lb.

Maw's No. 2 Hospital Lint,

1s. 6d. per lb.

SPECIAL QUOTATIONS BY THE CWT.

S. MAW, SON & THOMPSON, LONDON.

LINT

THE
LIVERPOOL PATENT LINT CO.,

MARK STREET MILLS,
NETHERFIELD ROAD NORTH,



LIVERPOOL,

MANUFACTURERS OF

PATENT FLAX AND COTTON LINTS
OF SUPERIOR QUALITY.

Will tear with perfect ease both ways, are free from the slightest impurity, being made from
UNSIZED yarns, and possess immense absorbent power and porosity.

Our SPÉCIALITÉ,

EXTRA SUPERFINE CAMBRIC LINT,

Is the finest Cotton Lint manufactured, and is specially adapted for Surgeons' private use.

ABSORBENT AND CARDED COTTON WOOLS.

ABSORBENT OPEN WHITE AND GREY

BANDAGES

Which are much superior to any other kind for softness, coolness, and cheapness.

WADDING, SURGEONS' TOW,
AND
CARBOLIZED TOW.

SPECIALITIES IN SURGICAL TISSUES.

A sorbent
Cotton Lints,
Flax Lints,
Roll Bandages,
Cotton Wools.



TRADE MARK
(REGISTERED).

"Gamgee Tissue"

(Patent Absorbent Gauze and
Cotton Wool)

AND

**Improved
Swans' Down.**

MANUFACTURED BY

ROBINSON & SONS,

Cotton Spinners, Weavers, and Bleachers,
WHEAT BRIDGE MILLS, CHESTERFIELD.
Ad 55 Fann Street, Aldersgate Street, LONDON, E.C.

LINTS.

These we make by our improved machinery. Perfectly pure, strongly absorbent, beautifully soft, tears well, and very cheap. Their use in the largest Hospitals of London, Edinburgh, &c., is a sufficient guarantee of their quality. Our Flax Lint is the only ABSORBENT Flax Lint made, that we know of.

BANDAGES.

Surgeons who have not seen our White Absorbent Roll Bandages should write us for a sample. As well as being all that is required for splints, &c., being instantaneously absorbent, LOTIONS can be applied direct through the Bandage, and they are also the very best Bandage for use with starch or plaster-of-Paris, &c.

**ABSORBENT
COTTON WOOLS.**

We were the Sole Manufacturers of Absorbent Cotton Wool for the late Sampson Gamgee, Esq., F.R.S.E., who introduced it into British practice, and have had a large and increasing demand for this article up to present date. We make a first-class article for Surgeons' private practice, and a pure cheap Absorbent Cotton for Hospital use. We are also Carders of both Grey and the ordinary grades of Non-Absorbent White Cottons.

**GAMGEE
TISUE."**

This patented article, recently introduced, and of which we are the sole proprietors and manufacturers, is deservedly increasing in favour with the profession. We quote the following extract from a Clinical Address delivered by **SAMPSON GAMGEE, Esq., F.R.S.E., Consulting Surgeon to the Queen's Hospital, Birmingham** :—

"On purely surgical grounds, I have no hesitation in stating that the absorbent gauze and cotton tissue prepared at my suggestion by Messrs. Robinson & Sons, of Chesterfield, is the most generally useful and comfortable, the most easily manageable, and most economical surgical dressing with which I am acquainted.

"The tissue, as made in long lengths, is perfectly uniform in surface and thickness, and can be cut to any shape or size to pad the trunk or the limbs, in case of disease or injury. Powerfully absorbent and elastic, the tissue is equally serviceable for drainage and compression, for dressing blisters and burns, wounds and ulcers, sprains and fractures. The tissue does not stick in wounds, and can be applied and taken off with facility and without pain. It does not lump together but remains uniform, and is a most soothing and healing application to inflamed joints, and many skin affections.

"The tissue is susceptible of any antiseptic medication, and it also takes up plaster-of-Paris, cream, liquid glass, collodion or paraffin so readily as to make an excellent basis for splintage and moulds. A limb or the trunk may be very speedily and effectually immobilized by surrounding it with a layer of the dry tissue, and outside that placing a layer, or intersecting slips, of the same material previously soaked in plaster-of-Paris, cream, or other solidifiable substance"—which is best kept into its desired position by Robinson & Sons' Absorbent Bandages.

PLEASE READ THIS—

N.B.—Certificate of Merit to Robinson & Sons for Bandages, Cotton Wools, and Lints. Exhibited at the International Medical and Sanitary Exhibition, London, 1881.

We place the highest value on this AWARD, as most of the Judges of Surgical Appliances at the late Exhibition have used our Lint, &c., for many years at the London Hospitals. No higher recognition of quality can be given.

ROBINSON & SONS.

OUR GOODS CAN BE HAD FROM THE WHOLESALE HOUSES OR DIRECT FROM THE MILLS.

ROTARY PILL MACHINES

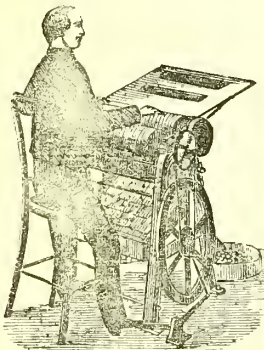


Fig. A.

Fig. A.—This invention consists in a novel and improved arrangement of Machinery, whereby any description of Pill Mass can be converted into Pills, at the rate of from 15 lbs. to 40 lbs. per hour, according to the size of the Machine used.

Fig. A.—No. 1 .. £12 12s.
No. 2 .. £15 15s.
No. 3 .. £20 0s.

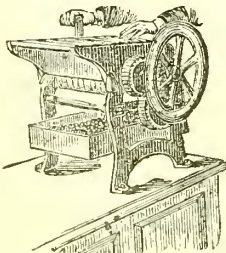


Fig. B.

Fig. B.—A small useful Machine, capable of making 10 lbs. of Pills per hour, particularly adapted for persons making small quantities, at £7 15s.

Press suitable for same, £2 15s.

Any of the above can be made to cut two or three different size Pills, at an additional cost for extra Rollers and Plates.

PIPING PRESSES

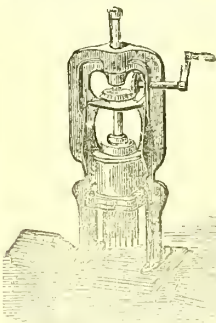


Fig. C.

Fig. C. is the improved Press for Piping, by means of which a great quantity of Mass can be Piped in a few minutes, truer than by the old method of rolling.

No. 1 .. £3 0s.

Fig. C.—No. 2 .. £5 10s.

No. 3 .. £8 0s.

J. W. PINDAR'S NEW ROTARY PILL MACHINE

As used to this date by Messrs. Holloway, Cockle, Cox, and all the principal Makers in Europe, Asia, Africa, America, and Australia.

J. W. PINDAR'S New Rotary HORSE BALL MACHINES.

These Machines are on a similar principle to the Rotary Pill Machines that have given such great satisfaction in all parts of the world.

Price £8 15s.

Rollers for other sizes, Riggers for Steam Power, also Gas Apparatus if required, supplied at a small additional cost.

Mr. J. W. PINDAR, 224 Strand, 13th March, 1866.

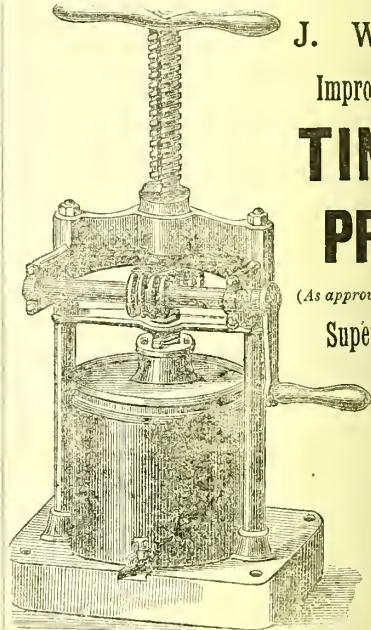
Sir,—I have much pleasure in stating that the Pill Machine which you made for me answers remarkably well, as the Pills are far better made than those by hand-machines, and with much less waste. I can, therefore, confidently recommend it as a very excellent one, a great saving of labour and, consequently, expense.—I remain, yours faithfully,

THOMAS HOLLOWAY.

3 Crane Court, Fleet Street, Feb. 14th, 1871.
To Mr. J. W. PINDAR.

Dear Sir,—We have now used your Rotary Pill Machine about six years, and find it answers better than any we had previously used, and makes the Pills of a very regular size.—Yours truly,

T. WHELTON.



J. W. PINDAR

Improved Double-Action

TINGTUM PRESSE

(As approved of by the Royal Commission)

Superior to all other

On account of the

the pressure.

Prices One

10s.

For additional

Gallon, 10s.

Discharge for

with

file.

338 Oxford St., opposite Great I

Mr. J. W. PINDAR,

Sir,—The Rotary Pill Machine

had from you (for a special order)

satisfactorily.—We are, Sir, yours

JOHN BELL

29 Murray St., New York, and

Mr. J. W. PINDAR,

Dear Sir,—Your letter of inquiry

As I always told you, the Pill Machine

my London warehouse has given

So have those we are using in this

make smooth, round Pills of uniform

small expense. I can safely say that

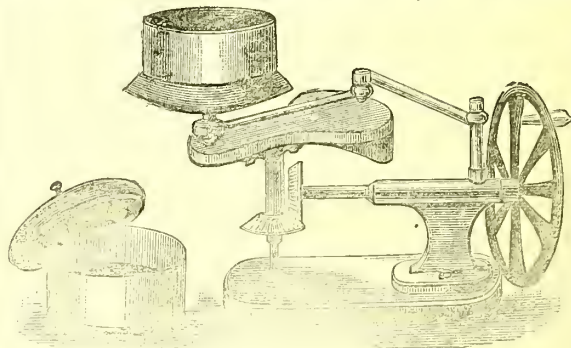
is all that you claim it to be—a

Yours truly,

J. WHITE

NEW PATENT “ECCENTRIC” PILL COATER

Invented and made by J. W. PINDAR, Patentee.



PRICES.

No. 1.—For 2 lbs. £2 5s.; sifter for same, 7s. 6d.

No. 2.—For 5 lbs. £3 15s.; sifter for same, 15s.

No. 3.—For 10 lbs. £5 15s.; sifter for same, £1 15s.

No. 4.—For 20 lbs. or Iron Standards for Steam, Gas, or other

power, £15 15s.; sifter for same, £2 5s.

The smallest Machines can be worked by Steam Power at a small

additional cost.

By an entirely new arrangement of mechanism in which the machine is constructed in a manner which enables it to produce all sizes of pills, the “Eccentric” motion, which may be used with Silver, Gold, or Steel, thoroughly separates the pills from their original shape, and throws them out with remarkable regularity. These machines are suitable for coating large quantities, a machine capable of coating 1 lb. only with equal efficiency. Each machine is supplied with a Drug or Powder Sifter, if required, and a Pill Receipt Book, some “Eccentric” mentioned.

This addition will advantage in the both efficient

Testimonials from all parts of the World may be seen on application

J. W. PINDAR, 75 New Church Rd., Camberwell,

HARTMANN'S HYGIENIC WOOD WOOL DIAPERS

Are enormously advertised, and have a rapid and more profitable sale to Chemists than any similar article advertised retail at 1/- and 2/- per dozen.

HIGHLY RECOMMENDED by the MEDICAL PROFESSION

SHOW CARDS AND CIRCULARS

With your own Name at foot, may be had on application to the

SANITARY WOOD WOOL COMPANY, LIM.

11 HATTON GARDEN, LONDON.

HARTMANN'S HYGIENIC WOOD WOOL DIAPERS

Can be procured from any Wholesale Drug and Sundry House in London at

9/6 AND 18/6 PER GROSS.

HARTMANN'S PATENT WOOD WOOL WADDING

ANTISEPTIC. ABSORBENT. ANTISEPTIC.

(IMPREGNATED WITH CORROSIVE SUBIMATE.)

is in most of the leading Hospitals in the United Kingdom. Received the highest recommendation from the leading Surgeons in this country. The most absorbent, efficacious, and cheapest dressing ever invented.

VALUABLE FOR SUPPURATING WOUNDS. PRICE, 1/9 PER POUND.

HARTMANN'S SANITARY WOOD WOOL SHEETS

For Accouchement, Bed Sores, & for Invalids in General.

Made in the following sizes :—

PRICES—24 inches by 18 inches, 1s.; 26 inches by 20 inches, 1s. 6d.; 32 inches by 32 inches, 2s. 6d.

These sheets are more economical than india-rubber ones, and at the same time are perfectly antiseptic, absorbent, more comfortable, and are without the disagreeable smell so common to india-rubber sheets, and so unpleasant to the Patient, Nurse, and Physician in attendance.

(CORRESPONDENCE WITH SHIPPERS INVITED).

SANITARY WOOD WOOL CO., LD., 11 HATTON GARDEN, LONDON.

IMPORTANT TO SHIPPERS AND BUYERS OF SURGICAL APPLIANCE VINCENT WOOD

(Sole Successor to JAMES WOOD & CO., established 1840),

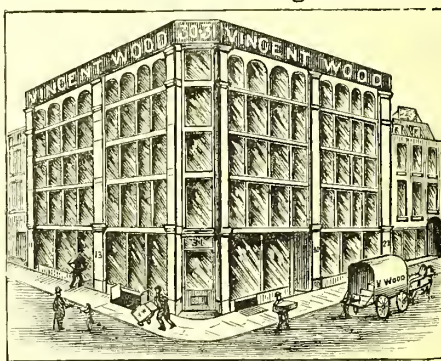
29, 30, 31 PATERNOSTER SQUARE, 11 & 13 ROSE ST., NEWGATE ST LONDON

WHOLESALE AND EXPORT ONLY. Registered Trade Mark, "EUREKA"

Offices and Showrooms
at No. 29.



CHEST EXPANDING
BRACES



Telegraphic address :
"ACME LONDON."

Inventor and Exclusive Manufacturer of the CELEBRATED

MEDICATED PINE WOOL FELT GOODS

Consisting of Chest and Lung Protectors, Ladies' and Gentlemen's Belts, Kidney Caps, Throat Compresses, and Sleeping Caps for Neuralgia.

The Therapeutic properties of the Medicated Pine Wool Felt are undeniable, as Dr. BERKLEY, of the Royal College of Physicians, London, in his report states :—

"Having tested the Medicated Pine Wool Felt, the invention of Mr. Vincent Wood, of Paternoster Square, London, E.C., I find it contains the drugs as mentioned by him, and I can recommend it with confidence."

For full particulars and Medical Press reports, see four-page Circular in the Special Issue of THE CHEMIST AND DRUGGIST, January 28, 1888.

I would urge our friends abroad to take up and push these articles vigorously, as I have received numerous testimonials from influential persons, stating the wonderful curative properties of this Felt, in Bronchitis, Colds, Neuralgia, Lumbago, &c. Although the cost of manufacturing is greatly in excess of ordinary Felt, I have placed the goods on the market at so low a price that the Trade is enabled to sell these in other goods of a like nature at or below the prices for plain Felt.

In ordering Protectors please note that my sizes, Single or Double—viz, 1 to 5—are about the same as those of other makers. Complications are thus prevented. In all cases the Double ones are recommended.

The Felt is made in various substances, and manufactured into the several articles enumerated above. The colour of the Felt, which is of a rich brown, does not fade or deteriorate by exposure.

Being desirous of well advertising these goods, I will supply (free of charge), with a parcel of Protectors, assorted, a handsome Terra-cotta Model of a lady, 19 by 8½, artistically draped and fitted with a Belt and Protector, under glass shade and pedestal; also 1,000 Circulars printed on fine toned paper, with name and address thereon; also blocks of illustrations for compiling price lists, &c.

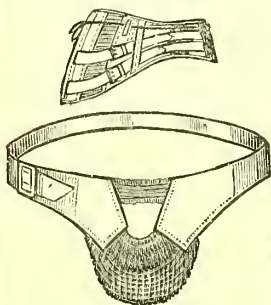
Inventor likewise of the "Acme," "Eureka," and other well-known kinds of Chest Expanding Braces; the New Obstetric Binder for ladies; Self-Adjusting Steel Plate, and every possible description of Gentlemen's Abdominal and Supporting Belt, Suspensory Braces, &c., &c., &c.

Being absolutely the Manufacturer of these Goods, I can give decided advantages in prices, combined with first-class workmanship and materials, over any house in the Trade.

Shippers are requested to communicate direct, or if through their Agents to

ASK FOR VINCENT WOOD'S GOODS.

Not connected in business with anyone of the same name.



DR. JOHN FRANCIS CHURCHILL'S INHALANT

"SPIRONE"

TRADE MARK.

FOR THE TREATMENT AND CURE OF ALL

COUGHS AND COLDS, ASTHMA, BRONCHITIS,

as to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in
 Inflammation of Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria,
 Angitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice,
 Colds the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

Genuine except as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottle
 on the Label over the Cork, and on the Wrapper,

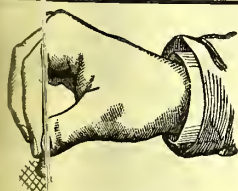
JOHN FRANCIS CHURCHILL, M.D. (Paris),

Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites.

Price 4s. 6d. and 11s. per Bottle.

APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

SPIRON COMPANY, Lim., Depot—17A Duke St., Manchester Square, LONDON, W.



Registered.

TRUSSES.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.
 LIVERPOOL.

LONDON CANADA:
 EVANS, LESCHER & WEBB, EVANS, SONS & MASON, LIM.
 60 Bartholomew Close. Montreal, Toronto; and Victoria,
 British Columbia.

THE
 SUPPLY OF PURE VACCINE LYMPH,
 FALLS, L.L. EAST, LONDON, S.W.
 AGENTS FOR DR. WARLWORTH'S GALT VACCINE.
 each, Half Tube, 1s. each. Pomade in vials, 5s.
 VACCINE, from healthy children only, microscopically examined and
 Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-
 points, 1s. 1d. each. Eighteen Charged Small
 Tubes (two-thirds full) same as those mentioned above, but without
 quantities for examination, 1s. per Tube. Pin-points uncharged, 1s. per
 Tube. Tubes between the hours of 12 and 2, by the Consulting
 Surgeon, at the uniform fee of one guinea. P.O.O.'s (including postage and crossed
 at Westminster Bank) with orders, payable to
 EDWARD DARKE, Secretary.
 Office, 10 to 4 Saturdays, 10 to 2

HUTCHINSON & CO. MANUFACTURERS OF INDIARUBBER GOODS.

CHALTES—The "Zephyr" Pillows and Cushions, in Silk and Fancy Sateen—Sponge
 Bags, Side and Double Faced Sateen—Pointillé (Reg.) and Star Check—Ice Bags—Rubber
 Bandage—Nursery Aprons, Coloured Proofings and Fancy Sateens, &c., &c.—Hot-water Bottles,
 Drab, and the Black Non-absorbent and Antiseptic Bottle—Odourless Bed Sheetings,
 Rose, Black and Drab.
 PROPRIETORS and MANUFACTURERS of the BANDAGE "HEFTBAND," in all widths for
 Surgeons' use; and 6d. Metal Boxes for the Retail Trade.

TO BE OBTAINED THROUGH ANY WHOLESALE HOUSE.

Telegraphic Address—"HUTCHINSON LONDON."

Telephone No. 265.

MEDICINAL GELATINE CAPSULES

			Containing	30	36	48
Cascara Sagrada (5 mins.), in round boxes	Per dozen	7/-	In oval screw-cap bottles	—	—	—
Castor Oil, in square boxes	...	5/-	Ditto ditto	5/6	—	8/-
Cod Liver Oil, in square boxes	...	7/-	Ditto ditto	—	8	—
Copaiba, without Name, in oval boxes	...	4/9	Ditto ditto	5/6	—	8/-
Copaiba, with or without Name, best, in oval boxes	...	5/9	Ditto ditto	6/6	—	9/-
Copaiba, Flexible, in oval boxes	...	6/-	Ditto ditto	6/9	—	9/6
Copaiba, Flexible, larger, in oval boxes	...	8/-	Ditto ditto	—	10	—
Copaiba and Cubeb, in square boxes	...	9/-	Ditto ditto	—	11	—
Copaiba, Cubeb, and Buchu, in oval boxes	...	8/-	Ditto ditto	—	10	—
Copaiba, Cubeb, and Sandal-wood Oil, Flexible, in oval boxes	...	17/-	Ditto ditto	17/-	—	25/-
Oil of Male Fern (18 drops), in square boxes	...	17/-	Ditto ditto	—	18	—
Sandal-wood Oil, Flexible, English, in round boxes	...	26/-	Ditto ditto	—	30	—
Sandal-wood Oil, Flexible, Foreign, in round boxes	...	20/-	Ditto ditto	—	20	—
Tar, Norwegian, in square boxes	...	6/-	Ditto ditto	—	—	—
Terebene, pure (10 drops), in round boxes	...	12/-	Ditto ditto	13/-	—	20/-
Turpentine, in square boxes	...	6/-	Ditto ditto	—	—	—

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

MAW'S MENTHOL CONES

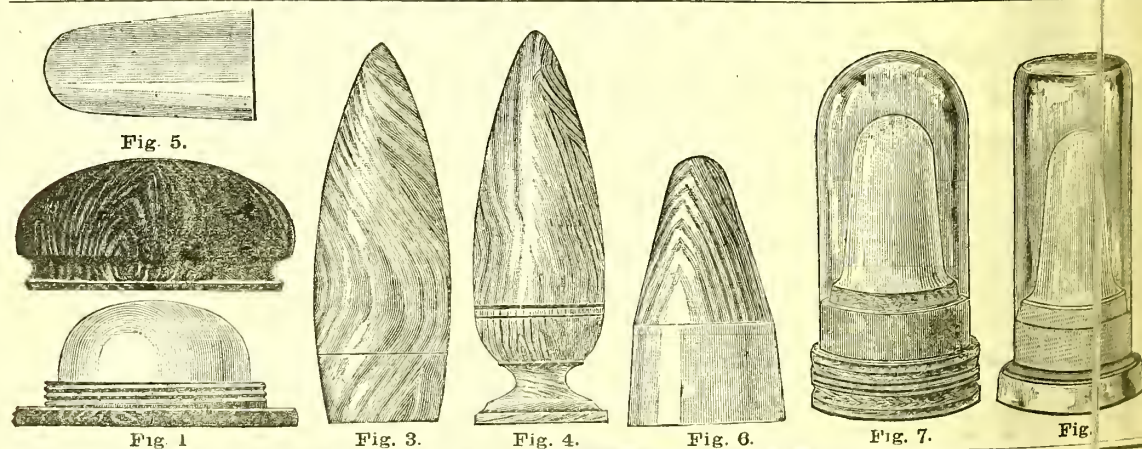


Fig. 1.	In Ebony Cases, flat for the pocket	...	...	...	...	...	Per doz.	3/-
	In Boxwood Cases, per doz., 3/- and 4/-; in Vegetable Ivory	...	...	...	...	...	"	4/- and 6/-
Fig. 3 & 4.	In Boxwood Cases, per doz., 2/8 and 4/-; in Vegetable Ivory	...	...	...	...	...	"	2/8 and 3/6
Fig. 5.	In White Opaque Glass Jars with Red Celluloid Caps	...	...	...	...	...	"	3/6
	Mounted, in Stoppered Bottles	...	...	...	...	...	"	3/6
Fig. 6.	Mounted on Vegetable Ivory, in Glass Bottles, Screw Metal Caps	...	...	...	...	...	"	3/6 and 5/9
Fig. 7.	On Boxwood Mounts, Glass Covers	...	...	...	...	...	"	3/6 and 5/9
	On new Glass Mounts, Glass Covers	...	...	...	...	...	Per doz.	3/6, 4/-, 5/- and 8/-
Fig. 8.	On Glass Mounts with Glass Covers	...	...	...	...	...	Per doz.	4/- and 6/-

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

SPECIAL NOTICE.

NOW READY.

REVISED CATALOGUE

OF

DRUGGISTS' SUNDRIES,

Surgical

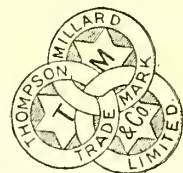
Instruments,

CHEMISTS' SHOP

FITTINGS, &c.

ISSUED

BY



THOMPSON, MILLARD & CO. LIMITED,
CURTAIN ROAD, LONDON, E.C.



*Proprietors
of the*

"MATER,"

"TROPICAL,"

"IMPERIAL,"

"BRISTOL,"

"STANDARD,"

AND

"BEATRICE"

FEEDING BOTTLES

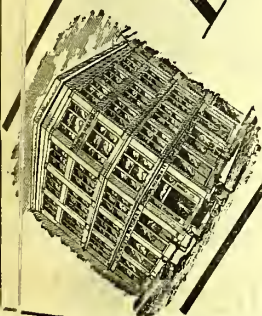


Special attention is invited to
Thompson, Millard & Co.'s

PRICE LIST FOR 1888,

which is in a revised form, giving greater
facilities to Buyers; forwarded to all parts
of the world on application.

Our goods give universal satisfaction, and buyers may with
confidence favour us with a Trial Order.



DRUGGISTS' CONFECTIONERY.

ROBERT GIBSON & SONS,

Medicated Lozenge Manufacturers,
CARLTON WORKS, ERSKINE STREET, HULME, MANCHESTER,
1 Australian Avenue, London, and 44 Alter Wall, Hamburg.

GIBSON'S SUPERIOR BOILED SUGARS

Have gained a High Reputation everywhere. **FOR EXPORT TRADE.** They are put up in 1-lb., 2-lb., and 5-lb. Bottles. Packed in Casks or in 1 doz. Cases as required, and delivered F.O.B. at any Port in England. These Sugars are absolutely pure. We specially recommend

Lime Fruit Tablets, Everton Toffy, Mixed Fruit Drops, Cough Drops, Raspberry Drops, Lemon Tablets.

CACHOU PEARLS,

Musk, Rose, Mint, and other Flavours. In 1-lb. White Glass Bottles. Bottle free.

COMPRESSED CHLORATE OF POTASH PELLET,

And PELLETS of every description, put up in 1-lb. White Flint Glass Bottles, with Boxwood Top Corks. Bottles not Charged.

HIGH-CLASS LOZENGES

OF EVERY DESCRIPTION.

Chlorodyne Cough Lozenges, Chlorodyne Jujubes, Peppermint Lozenges,

In every variety of size and strength. Curiously Strong, and Miltum in Parvo Mints give the utmost satisfaction. Medicated Lozenges of Pharmacopœia Strength.

DIGESTIVE TABLETS. VOICE AND THROAT LOZENGES for Singers and Public Speakers.

ORIGINAL SUGAR WORM CAKES

Have an immense sale, both at home and abroad; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

THROAT HOSPITAL LOZENGES

(As per T. H. Pharmacopœia).

All Lozenges are sent out in 2-lb. and 4-lb. Bottles (*bottles free*), but allowed for if returned.

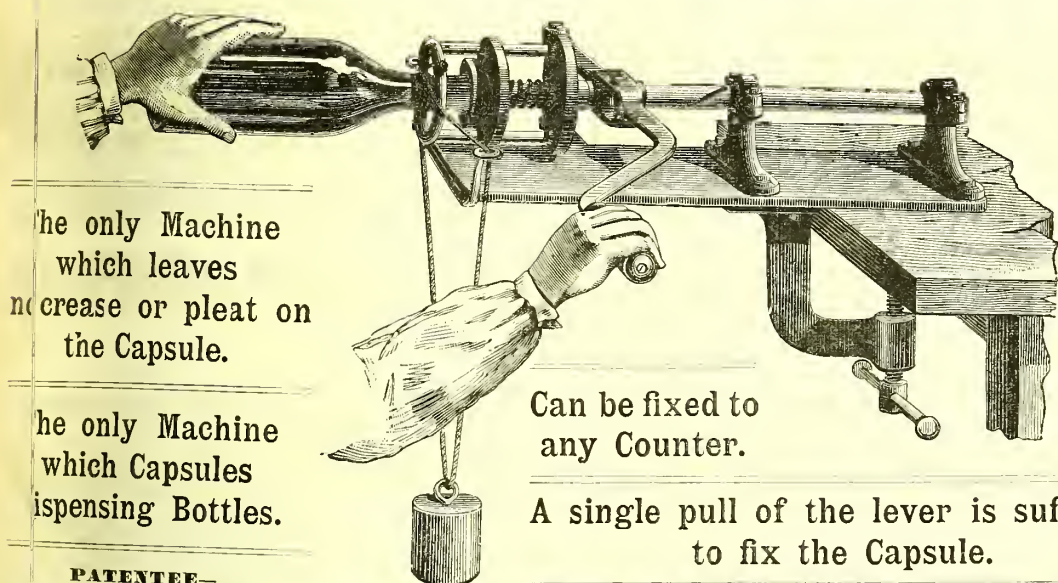
PROPRIETARY LOZENGES CAREFULLY PREPARED, STAMPED, AND CUT TO ANY SIZE OR SHAPE.

PRICE LISTS SENT ON APPLICATION.

E. C. RICH COMPANY, Limited, Agents, United States.

NEW CAPSULING MACHINE

SPECIALY RECOMMENDED TO CHEMISTS.



The only Machine
which leaves
no increase or pleat on
the Capsule.

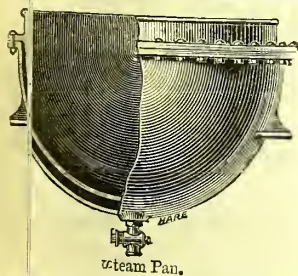
The only Machine
which Capsules
Dispensing Bottles.

Can be fixed to
any Counter.

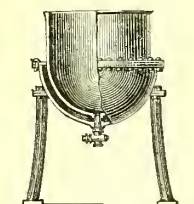
A single pull of the lever is sufficient
to fix the Capsule.

PATENTEE—

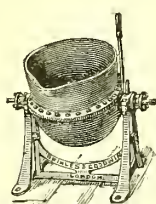
C. MELIN, 37 CRUTCHED FRIARS, LONDON, E.C.



Steam Pan.

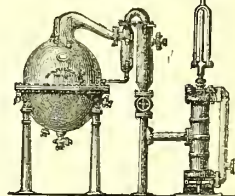


Steam Pan.



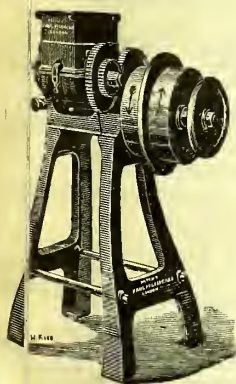
Tilting Pan.

Vacuum Pan, Condenser,
and Air Pump.



MANUFACTURERS OF
Crushing and Grinding Machinery.
Boiling and Evaporating Machinery.
Paint and White Lead Machinery.
Food Preserving Machinery.
Fruit Preserving Machinery.

BRINJES & GOODWIN,
FIELDGATE ST., LONDON, E.
ESTABLISHED 1829.



CHEMISTS' MACHINERY.

PILL MASS KNEADING MACHINES.
PILL MAKING MACHINES.
PELLET PRESSES.
DRUG GRINDING MACHINES.
SIFTING MACHINES.

FULL PARTICULARS OF ABOVE ON APPLICATION TO

WERNER & PFLEIDERER, 86 Upper Ground St., LONDON, S.E.
Blackfriars Bridge,

THE SELF-OPENING TIN BOX COMPANY

(GRIFFIN'S PATENT).

ALBION TIN WORKS, YORK ROAD, KING'S CROSS, LONDON, N

Telegraph Address—"TIN BOX LONDON."



Boxes ready made up, or the Patent Tops only (ready for making up), are supplied.

THE NEW TIN BOXES for all kinds of Hermetically Sealed Preserved Foods, DRUGS and CHEMICALS.

THE NEW TIN BOXES are as cheap as the ordinary Boxes, require no soldering up, and can be opened with a penny piece.

THE NEW TIN BOXES are being used by the largest Food-preserving Houses and CHEMISTS, to whom references can be given.

THE NEW TIN BOXES are also perfect for Tea and Coffee Canisters, Biscuit Boxes, Confectionery, Preserves, Oils, Varnishes, Soaps, &c.

THE NEW TIN BOXES are described by the *Times*, *Standard*, *Chronicle*, *Illustrated News*, *Engineer*, *Grocer*, *Colourman*, and Press generally, as the "neatest and most elegant invention ever made."

CAUTION.

IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

GRIFFIN v. NOAKES. 1887. G. No. 1,088.

GRIFFIN v. FRAVER. 1887. G. No. 108

As we understand from some of our Clients that, from false representations made, an impression prevails that the proceedings in these actions have failed, we beg to inform the public that such is not the fact, and that the proceedings are being carried on as fast as possible, in the Chancery Division of the Court, to restrain the Defendants from selling or making Tins similar to those manufactured by us, and from infringing our patents. The Defendants, pending the proceedings, have been ordered by the Court to keep an account of all sales made by them. Our Solicitors, Messrs. CLARKSON, GREENWELL & Co., have had instructions from us to proceed against all persons so offending.

FOR THE SELF-OPENING TIN BOX COMPANY, G. FEATHERSTONE GRIFFIN, Manager.

THE ORIGINAL GENUINE EAST INDIA OIL OF MUSTARD SEED

Is strongly recommended as a safe and effectual remedy in cases of

RHEUMATISM, GOUT, RHEUMATIC GOUT, SCIATICA, LUMBAGO, HEADACHE, PAINS IN THE STOMACH, SPASMS, BRUISES, CHILBLAINS, &c.

RETAIL IN BOTTLES, 1s. EACH.

Imported by J. H. & S. JOHNSON, Wholesale Druggists, 6, 8, and 10 WHITECHAPEL, LIVERPOOL

Wholesale Agents: London—Newbery & Sons, and Bourne, Johnson & Lamer.

DRESSING COMBS.

For quotations of all descriptions see Druggists' Sundries List of undersigned.

EVANS, SONS & CO.
LIVERPOOL.

LONDON:

EVANS, LESCHER & WEBB,
60 Bartholomew Close.

CANADA:

EVANS, SONS & MASON, LIM.
Montreal, Toronto; and Victoria,
British Columbia.

GOLD MEDAL, EDINBURGH, 1883.

SEALING WAX.

(LION BRAND.)

DISPENSING, PARCEL, POSTAL, & BOTTLE WAX
OF EVERY DESCRIPTION.

This article could be profitably dealt in by Chemists and Druggists.

Show Cases filled with Stock, from 1. 6.

Special facilities and terms to Wholesale and Export Houses.

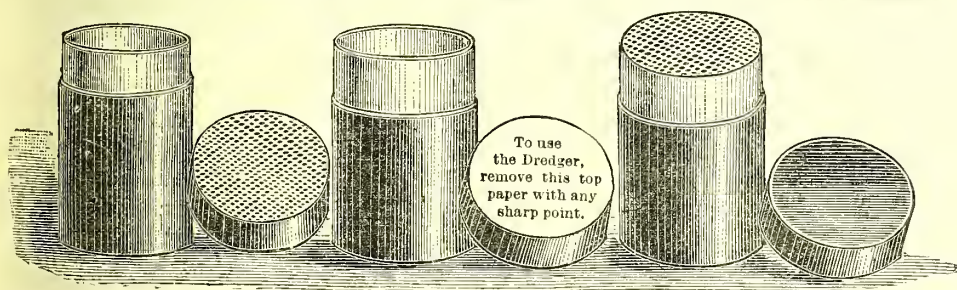
GEORGE STEWART & CO., SEALING WAX MANUFACTURERS
Edinburgh; and 3 Dyer's Buildings, Holborn, LONDON.

ROBINSON & SONS,

MANUFACTURERS OF CARDBOARD

INSECT POWDER BOXES.

COVERED IN ANY STYLE TO SUIT PURCHASERS.



A

B

C

A PERFORATED ZINC ON TOP OF LID.

B " " but covered with a printed card, which can be removed to dredge the Powder.

C " " INSIDE" THE BOX, the shoulder being left loose for filling.

ALSO MANUFACTURERS OF

CARDBOARD BOXES,

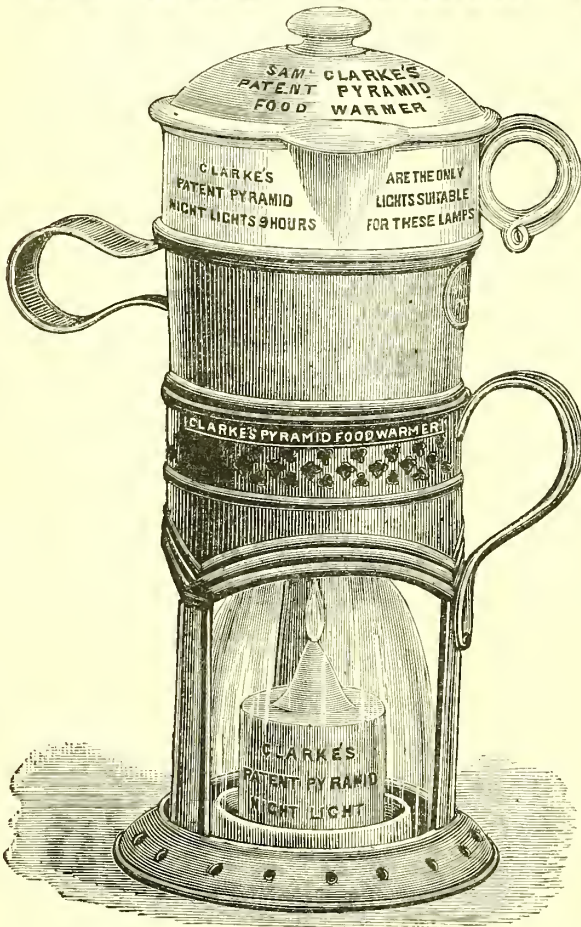
ROUND, OVAL, OR SQUARE, FOR THE
DRUG, DRYSALTERY, & CONFECTIONERY TRADES,

Pill and other Boxes labelled with the user's Name at a very small extra cost.

Baking Powder Cases, Bottle Cases, Camphor Ball Boxes,
Dispensing Powder Boxes, Fullers' Earth and Violet Powder
Boxes, Insect Powder Cases, Lozenge Boxes, Magnesia Cases,
Marking Ink Cases, Postal Bottle Boxes, Seidlitz Powder
Boxes, Syringe Cases, &c.

WHEATBRIDGE MILL & HOLMBROOK WORKS, CHESTERFIELD,
AND
5 FANN STREET, ALDERSGATE STREET, LONDON.

SAMUEL CLARKE'S PATENT "PYRAMID" NURSERY LAMP FOOD WARMERS.



PATENT

"PYRAMID" NIGHT LAMPS, 6s. per doz., Lacquered or Bronze
AND

"PYRAMID" NIGHT LIGHTS, 7s. 6d. per doz. boxes.
Less 5 per cent. Cash.

8 Lights in each Box, burn 9 hours each.

The "Pyramid" Night Lamps render the burning of a Night Light perfectly safe, entirely prevent FLICKERING (so objectionable in all Night Lights not burned in a Lamp), are clean, portable and render a Night Light useful for many purposes where they otherwise would not be.

The "Pyramid" Food Warmers, by their peculiar construction—the glass chimney conducting and concentrating heat to the bottom of the water vessel—a larger amount of LIGHT and HEAT than can be in any other lamp of the same class. Without SMOKE or SMELL.

The "Pyramid" Night Lights are made much larger than any other Night Light, and give double the light; they are, therefore, very suitable for nursery lamps, lighting passages, lobbies, &c., and adaptable to many purposes for which the common Night Lights are useless.

DIRECTIONS FOR USING THE PATENT "PYRAMID" FOOD WARMER AND NIGHT LIGHTS.

The food which is required to be kept hot to be placed in the porcelain panakin, and water in the tin vessel—just sufficient to admit of the panakin being placed therein. Care should be taken in lighting the Night Lights not to injure the top, which is a protection for the wick, but simply apply a lighted match or taper, and allow the material to melt away.

	RETAIL.	WHOLESALE.	REDUCED PRICES—NET CASH.
No. 1 Holds Half-pint Food, besides Water, price	3s. 6d. each	.. .. 30s. per dozen	.. .. 27/- per dozen.
No. 2 " Three-quarters Pint Food " "	5s. 0d. " "	.. .. 36s. " "	.. .. 30/- " "
No. 3 " One Pint Food " "	6s. 0d. " "	.. .. 42s. " "	.. .. 33/- " "
Clarke's Hot Water Lamps	2s. 6d. " "	.. .. 20s. " "	.. .. 18/- " "
" "Pyramid" Night Lamps	1s. 0d. " "	.. .. 8s. " "	.. .. 6/- " "
" " " Lights	.. ..	.. .. 7s. 6d. " "	.. ..

CAUTION.—The Patentee, in reply to numerous consumers, begs to state that he will warrant his PATENT "PYRAMID" FOOD WARMERS to answer the purpose for which they are recommended only when the "Pyramid" Night Lights are burned in them; the common Night Lights will not give sufficient heat. Persons who find a difficulty in obtaining the "Pyramid" Night Lights in good condition are requested to apply to S. CLARKE, Patent "Pyramid" Night Light Works, Cricklewood, London, N.W., who will give the address of his nearest agent. The "Pyramid" Night Lights are best when newly made; the "Pyramid" Food Warmers are sold by all respectable dealers throughout the Kingdom, at 3s. 6d., 5s., and 6s. each.

N.B.—EXTRAS.—Porcelain Panakins, No. 1	.. .. 8s.	Lids	.. .. 2s. per dozen.
No. 2	.. .. 9s.	.. ..	.. .. 3s. " "
No. 3	.. .. 10s.	.. ..	.. .. 4s. " "

Tin Panakins, No. 1, 8s.	.. ..	No. 2, 10s.	.. ..	No. 3, 12s. per dozen.
Clear Glasses, 4s.	.. ..	Roughed, 6s.	.. ..	Opaline, 6s.; Coloured, 6s. per

PATENT "PYRAMID" NIGHT LIGHT WORKS, CRICKLEWOOD, LONDON, N.W.

N.B.—See that the Trade Mark, "PYRAMID," is on every Lamp and Light.

Telegraphic Address: "SYPHON STOVES LONDON."]

THE "SYPHON" (Registered Title.)

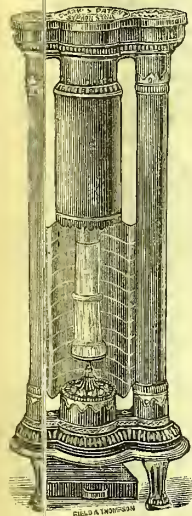
(CLARK'S PATENT)

GAS HEATING STOVES.

NO FLUE REQUIRED. NO SMOKE. NO SMELL. NO DIRT OR TROUBLE. NO DANGER.

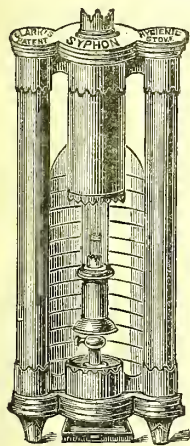
All Sulphurous Vapours are condensed inside the Stoves and passed off as a liquid into the tray beneath.

THE ONLY SAFE Stoves for use in Hospitals, Sick Chambers, Greenhouses, Bedrooms, Halls, Shops, Offices, Churches, Schools, &c., &c.



No. 5.

No. 5.—For Heating and Lighting. Stands 42 in. high, Argand Burner, consumes 10 ft. of gas per hour when full on. Suitable for large Halls, Conservatories, large Rooms, or Sts. Price £26; with polished Copper Side Columns, 15s. extra.

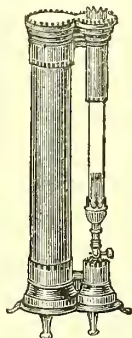


No. 2.

No. 2.—For Heating and Lighting. Stands 40 in. high, Argand Burner, consumes 9 ft. of gas per hour when full on. Suitable for Hall, Conservatory, Shop, or Bedroom. Price £3 15s.; with polished Copper Side Columns, 12s. extra.

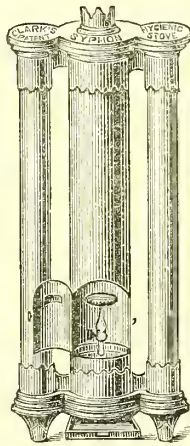
No. 3.—For Heating and Lighting. Stands 33 in. high, Argand Burner, consumes 6 ft. of gas per hour when full on. Price £3; if with polished Copper Side Columns, 10s. extra.

Either of these two Stoves can be had for burning oil.



No. 1.

No. 1.—For Heating and Lighting. Single Pillar Stove. Stands 30 in. high, consumes 6 ft. of gas per hour when full on. Suitable for Offices, Landings, Passages, or small Conservatory. Price £1 18s.

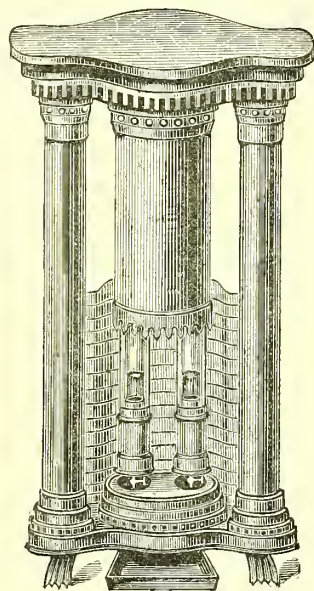


No. 3.

No. 3.—For Heating only. Stands 40 in. high, Bunsen Burner, consumes 9 ft. of gas per hour when full on. Suitable for Conservatory, or Rooms where heat only is required. Price £3 10s.

No. 6.—Similar Stove, only larger. Stands 42 in. high, and of greater heating powers, consumes 12 ft. of gas per hour when full on. Price £5 5s.; with polished Copper Side Columns, 15s. extra.

No. 9.—For Heating only. Stands 33 in. high, Bunsen Burner, consumes 6 ft. of gas per hour when full on. Suitable for Conservatory or small Rooms. Price £2 17s. 6d.



No. 10.

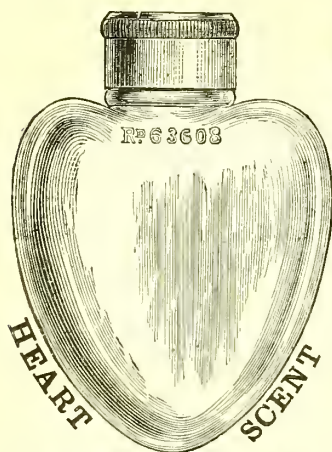
No. 10.—For Heating and Lighting. This is a very powerful Stove, having two Argand Burners. Stands 50 in. high, consumes 18 ft. of gas per hour when full on. Suitable for large Entrance Halls, Churches, Hospitals, Wards, School-rooms, Greenhouses, &c. Price, with ornamental Iron Top, £7 10s.; if Marbled Slate Top, 15s. extra; polished Copper Side Columns, 15s. extra.

THESE are the ONLY SAFE Stoves without a flue made in this form, though others are offered in inferior materials and without our patented safeguards for destroying the sulphurous compounds given off from burning gas by passing them over the whole interior of Stove, and condensing them into harmless liquid.

Improvements just perfected there is fully 50 per cent. ADDITIONAL HEATING POWER FROM THE SAME CONSUMPTION OF GAS. Each "Syphon" Stove is now supplied with a Gas Governor, giving a regular flame under varying pressures, and they are now constructed so that A MOIST OR DRY ATMOSPHERE IS OBTAINABLE AT WILL.

NOTE.—We are preparing a Gas Stove similar to the above No. 2, specially adapted for Pharmaceutical purposes. It will have two Bunsen Burners at the top (one on each side) for boiling purposes, also a Boiler to contain about two gallons of water, with draw-off tap in front.

S. CLARK & CO., Patentees and Makers,
"SYPHON" WORKS, PARK ST., ISLINGTON, LONDON, N.



R. H. BARRETT,

Flint Glass Bottle Works,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

THE HEART SCENT BOTTLE (Reg.), for Salts or Perfume.

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience. Prices as follows, Plain or Fluted:—WHITE, 21/- per gross; COLOURED, 24/- per gross. Or in 5 GROSS lots:—WHITE, 16/-; COLOURED, 18/- . If put up in Dozen Boxes, 2s. per gross extra. N.B.—The Caps for these will be fitted, if desired, with indestructible washers, to resist the action of ammonia, which destroys cork in a short time.

METAL SCREW-CAPPED LIMES, in White Flint, Actinic Green, Amber, The Best Bottle for Glycerine or Pills. Prices: 1 oz. 13/6, 2 oz. 15/-, 3 oz. 18/-, &c. per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stopped.

Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

TELEGRAPHIC ADDRESS—"FOREFRONT LONDON."

(1)

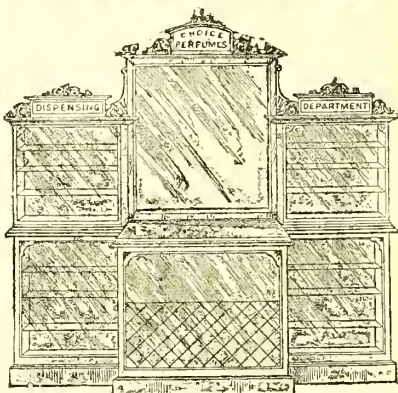
"THE CHEMIST" DISPENSING COUNTER.

6 feet long by 2 feet wide .. £24
If the Dispensing Screen only, £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison cupboard. The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.

BOWLING & GOVIER

Manufacturers of High-class Shop Fittings,
GUN ST., BRUSHFIELD ST.
BISHOPSGATE, E.C.



NOTICE TO THE TRADE.

In consequence of inferior Second-hand Goods being sold in your market, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, and unless goods are so stamped cannot be answerable.

E. NATALI,

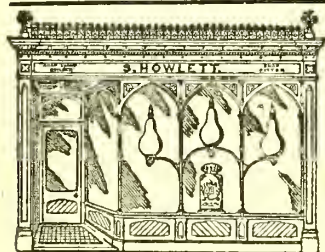
SHOW CASE MAKER,

SHOP AND OFFICE FITTER,

207 OLD STREET, near Pitfield Street, LONDON, E.C.

Works—HENSON STREET.

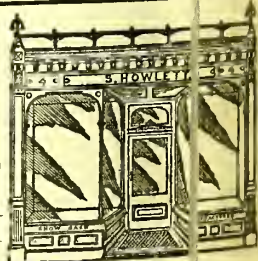
SECOND-HAND COUNTERS, FITTINGS, GLASS CASES, &c., always in Stock.



ESTABLISHED 1830.

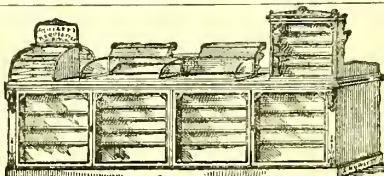
S. HOWLETT,
MEDICAL AND
GENERAL SHOP FITTER,
Shop-Front Builder and Show-Case Maker.

EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained of Leading Chemists in all parts of the Kingdom.



A LARGE STOCK of New and second-hand Fittings and Cases to be sold very cheap. CABINET FITTER to the Pharmaceutical Society of Great Britain. PLANS and ESTIMATES SUPPLIED.

Manufactory and Showrooms—4 Lindley St., Sidney St., Mile End Road, LONDON, E.

HARMLESS COLORS

For Confectionery, Preserved Goods, Biscuit Making, Cordial Drinks, Perfumery, Toilet Powders, Soaps, &c., &c.

SHIPPERS SUPPLIED ON LIBERAL TERMS.

GEORGE MORRIS, HARMLESS COLOR MANUFACTURER, 256 CITY ROAD, LONDON, E.C.

Please name this Journal.

METHYLATED SPIRIT & FINISH

Supplied of the best quality in wholesale quantities by

J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

LONDON AGENTS—JAMES CHAMBERS & CO., 23 BIRCHIN LANE, CORNHILL, E.C.

S.V.R.

PURE GRAIN SPIRIT 56 O.P. ... 18/5

Do. Do. DOUBLE DISTILLED 18/9

Cash with Order. Reductions for Larger Quantities than Two Gallons.

S. S. & Co.'s Speciality for Perfumery. Samples free.

STEPHEN SMITH & CO., BOW, LONDON, E.

JAMES BURROUGHS
Best
Cale St.
Distillery,

Methylated
CHELSEA,
S.W.

Spirits
AT LOWEST PRICES.

Also Best

Miscible

Naphtha

FINEST WOOD NAPHTHA.

JAMES BURROUGHS
LONDON, S.W.

FRONK, DAVIS & CO.

3 TRINITY PLACE, TOWER HILL, LONDON, E.C.

Artline Dis, Dywood Extracts, Ingo Paste, Cudbear,	Wood Stains, soluble in boiling water or spirit varnish, Ink Powders, Chemicals,	Bronze Powders, Brocade, Metal Leaf, Compo Leaf, Gold Leaf, Silver Leaf,	Vermilion, Vermilionette, Ultramarine, Lime Blue, Lakes, Carnation Paste,	Dextrine, Farina, Gum Arabic, Rye Flour.
---	---	---	--	---

SOLE AGENTS FOR SEVERAL LARGE GERMAN MANUFACTURERS.

SAMPLES AND PRICES ON APPLICATION.

STOCK OF ALL ARTICLES KEPT IN ENGLAND.



ADDRESS CARDS.



ANALYTICAL AND CONSULTING CHEMIST.
GEO. LOGAN RAIT, F.C.S., &c.
 Laboratory—31 MOORGATE ST., LONDON, E.C.
Assistance given to Manufacturers and others requiring Chemical knowledge.
Fifty per cent. discount allowed to the Trade.

RUBBER TYPE



On Metal body, perfectly accurate, for instantly making a RUBBER STAMP for Special Labels, &c., saving expense and delay. Send for Specimens and Price List to the Patentee.
E. M. RICHFORD, Dept. 44 Snow Hill, London,
 Manufacturer of Rubber Stamps, Presses, the "Nigropadd" and "Effective" Self-Inking Pads, &c., and Stamp-making Outfits.
Chemists in all parts of the world can add largely to their profits by pushing our Goods. Liberal terms.

PRIVATE TUTOR.

MR. JAMES W. SAUNDERS

(From the Royal School of Mines),
ASSISTANT PUBLIC ANALYST, ASSAYIST, &c.
 6 ROCHESTER SQ., CAMDEN RD., N.W.
 Reads with gentlemen preparing for all examinations. No classes or demonstrators, but individual personal attention. Fees moderate. Chemical and Microscopical Analyses undertaken.
 Laboratory—65 EUSTON ROAD, KING'S CROSS, N.W.

PERFUMES, No. 30.

FIFTY KINDS.
9s. for 20 oz., Carriage Paid.
Samples of any kind for 2 stamps.
 When buying, compare my Perfumes with other makers', and buy the best.
GEORGE DURRANT, HERTFORD.
London Depot—Messrs. BAISS BROS. & CO.

Critchley's Starch Gloss

Makes Starched Linen like new. Does not stick to spider-like Materials. Once tried always wanted. Used in the Royal Laundries. Sold everywhere, in Packets, 1d., 3d., 6d., and 1s. each. Write for quotations.

Prepared only by
CRITCHLEY,
 BLACKBURN, and
 1 & 3 Australian Avenue,
 LONDON, E.C.

HONEY-DROP—FOR THE SKIN

Retail—6d., 10d., 1/6, and 3/-
 This splendid preparation, which is selling immensely, can be had wholesale from
W. EDWARDS & SON, LONDON; EVANS, GADD & CO., EXETER
 Sole Proprietor and Manufacturer,
GEORGE STOCKER, CHEMIST, EXETER.

E. BRAMWELL & SON, ST. HELENS, LANCASHIRE.

EPSOM SALTS (PURE).
CREAM CAUSTIC SODA.
SULPHITE OF SODA
 (PHOTOGRAPHIC AND COMMERCIAL).
GLAUBER SALTS.

HORN & SON
 AUTHORISED AGENTS FOR PROCUING
PATENTS AND TRADE MARKS,
SOMERSET CHAMBERS, 151 STRAND, LONDON
 (NEXT TO SOMERSET HOUSE).
Guide to New Patent Law and Registration gratis.

MESSRS. HORN & SON supply, on application, full particulars of the NEW MERCHANDISE MARKS ACT, and the Cases recently decided. Labels revised meet the New Law.

The most Agreeable and Rapid Remedy for Asthma, Consumption, Coughs, Colds, Bronchitis, Throat Affections, Shortness of Breath, and all Disorders of the Chest is



Prepared only by DA SILVA & CO., 26 Bride Lane, Fleet Street, LONDON.
 Sold by all Druggists at 1/11, 2/9, 4/6, and 11/6 per box.

THE MANCHESTER MAKERS OF
METH. SPIRIT
 J. & D. MACNAIR & CO.,
 29 Robert St., Bridge Street, Manchester, and Glasgow.
 Send for prices and samples.

IMPORTERS OF
SHELLAC, GUMS, ETC.

WRITE FOR PRICE LIST OF
EBOLITE. PATENT GLASS. EARTHENWARE.
 (Unbreakable.) (Deep Ribs and Stout.) (Improved Pattern.)
ALL SIZES FUNNELS
 SUITABLE FOR ALL TRADES.
X SPECIAL TERMS TO WHOLESALE BUYERS
AYRTON & SAUNDERS, LIVERPOOL.

A REQUISITE FOR EVERY CHEMIST.
 THOMPSON'S "EXCELSIOR"
GELATINE PILL-COATING MACHINE.
 See Chemist and Druggist Diary for 1887, page 24.
 SMALL MACHINE TO COAT 96 PILLS EACH.
 For further particulars apply to
JAS. ROBERTSON & CO., 35 George Street, LONDON
 London Agents—S. MAW, SON & THOMPSON.

"SPECIALITÉ" LIME JUICE
 NO MUSTY FLAVOUR. REQUIRES NO SUGAR.
 For Sample and Terms
FELTOE & SON,
 ALBEMARLE STREET, LONDON, W.
 Can be obtained through the Wholesale Houses

ESMANN BROS. & WALSH, LONDON,
INVENTORS AND MANUFACTURERS OF THE
SOFT SILK FLEXIBLE CATHETER,
WITH WOVEN EYES.
To be had of all Surgical Instrument Makers & Wholesale Houses.

GEORGE HAYNES & CO.
Hamstead Cotton Mills, Cherry Tree Lane, Stockport,
MANUFACTURERS OF
BLEACHED AND ABSORBENT WOOLS,
Grey Wool, Coloured Wools, and Jewellers' Sheets.
WHOLESALE AND EXPORT ONLY.
Telegraphic Address—"HAYNES STOCKPORT."

"LA BRILLANTINE"
METALLIC POWDER (REGISTERED)
Is the best, safest, and most effective Powder for cleaning and polishing Metals and Glass (especially Brass). It is used by the **LIFE, HORSE, and DRAGOON GUARDS**, the **PIRE BRIGADES**, &c., &c. Sold in 6d. and 1s. Boxes.
Proprietors: J. F. BAUMGARTNER & CO.,
2 Newman Street, Oxford Street, LONDON, W.

FREDK FINK & CO.,
10 & 11 MINING LANE, LONDON, E.C.
SPECIALITIES: Glycerine—Gum Arabic—Gum Tragacanth—Pure Beeswax—Honey—Vanilloes.

BENNETT & JENNER,
STRATFORD, LONDON,
MANUFACTURERS OF
Hydrogen Peroxide, 10 to 20 Vol., Commercial and Pure; Caramel Burnt Sugar, Solid and Liquid; Sulphurous Acid; Sulphuric and Bisulphuric; Iron Sulphate, Pure, and all Iron Salts; Calcium Chloride, Pure, Cryst., and Fused.
IMPORTERS OF CARMINE AND PHOSPHORIC ACID.

HEALTHITAS,
THE NEW DISINFECTANT, in Powder, Fluid, and Soap, &c.
CHLORIDE OF LIME, in Bulk, or in $\frac{1}{4}$, $\frac{1}{2}$, and 1 lb. Air-tight Packages
CARBOLIC POWDER, from £2 10s. per Ton.
✓ **NEW CARBOLIC SANITARY CO., LD.** ✓
HACKNEY.


TYPKE & KING,
22 Laurence Pountney Lane, E.C.
Manufacturers—MITCHAM & RAINHAM.
Pure Acetic Sulphure Pineapple granulated
—Valerianic Acid and all Valerianates. Antimony Golden Antim. Crocus Lump, and Powder. Essences of Pear and Potassium Cyanide. Nitrate of Ammonia, crystal and Potass. Sulphid. Iron Perchloride, solid and solution. Hypophosphites of Lime, Manganese, Soda, Potash, &c.

S. SAINSBURY'S
A High-perfumed Scent,
prepared from the finest
ENGLISH LAVENDER,
without foreign whatever.
178 & 77 STRAND, LONDON.
Whole and Shipping terms on application.
Lavender Water.

PRECIPITATED CHALK, WHITEST AND PUREST.

CHEAPEST SELLERS IN THE MARKET.
ALSO CHEMICALS, DRUGS AND OILS.
APPLY TO
AUG. LEVERMORE & CO.,
8 LIME STREET LONDON, E.C.

WILLOW BOXES
PAUL METZ,
2 NEW ZEALAND AVENUE,
LONDON, E.C.
Wholesale Buyers of these goods should write to me for samples and prices before ordering elsewhere.

TRADE MARK REGISTERED

To all those of either sex who have lost or are losing their Hair,
CAPPER'S CRINIDONE, THE HAIR PRODUCER,
WILL PROVE A BOON.
Thousands of living Testimonials testify to the efficacy of "CRINIDONE." In bottles, 1/ each.
Wholesale Agents—EVANS, SOSS & CO., Liverpool.
Sole Manufacturer—W. E. CAPPER,
21 Oxford Street, C-on-M., MANCHESTER.

NEW CURATIVE TOOTHACHE PELLETS
(PATENTED AND REGISTERED).
Cure Toothache when everything else fails. Do not burn. Tubes containing Four Pellets are sold at 1s. 1 1/2d.
Wholesale on usual terms of Barclays, Newberrys, Suttons, Sangers, Hovdens, London; John Thompson, Liverpool, &c.
N.B.—ARE INVALUABLE TO DENTISTS PRIOR TO STOPPING.
Proprietor, **W. WILSON, 17 Devonshire Square, E.C.**

PETROLEUM JELLY,
EQUAL TO AND CHEAPER THAN VASELINE.
SANITARY FLUID AND SHEEP DIP,
THE CHEAPEST AND BEST DISINFECTANT.
GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.
Samples and Prices on application.
GRINDLEY & CO., POPLAR, LONDON, E.

TO LET.

THE PERFECT SURGICAL BANDAGE.
Preferred to all Makes hitherto used.
In Cases of Twelve Six-yard Rolls, 2 inches wide, 3s. 9d.; 2 1/2 inches, 4s. 6d.; 3 inches, 5s. 6d.; or, Case containing twelve Six-yard Rolls of each width, 13s.
Free by post, to any address in the United Kingdom, for prepaid orders only.
MANUFACTURED BY THE
Bole Hall Mill Company, Tamworth, Staffordshire.

HARSTON & CO., LEEDS.
GINGER ALE
From **PURE JAMAICA GINGER ROOT.**
SELTZER, POTASS, LITHIA, SODA WATER, LEMONADE,
FOR HOME OR EXPORT.

HORSE, CATTLE, AND SHEEP MEDICINES.

BY ROYAL APPOINTMENT.



By Special Warrant,
Dated 27th December, 1865.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE



By Special Warrant,
Dated 10th February, 1866.

"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS.

Containing the following Matchless Remedies for all Disorders in Horses, Cattle, Calves, Sheep, & Lambs:

THE CHEMICAL EXTRACT.

For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, and swellings in horses; for pain after calving and lambing, and for swollen udders and sore feet. $\frac{1}{2}$ -doz. box, 7s. 6d.

THE RED DRENCH.

Celebrated for inflammatory disorders; such as fevers, pleurisy, foot-and-mouth complaint, yellows, surfeit, and red water. Also for difficult calving and lambing. 3s. 6d. per doz. for Ewes; 13s. per doz. for Cows.

THE GASEOUS FLUID.

Unmatched for colic or gripes and debility in horses, for colds, chills, shivering fits, and diarrhoea in cattle, calves, and sheep. 20s. per dozen box.

THE CARMINATIVE CHALK.

A warm stomachic in severe diarrhoea or flux, by way of change of the gaseous fluid in great irritation of the bowels. $\frac{1}{2}$ -dozen box, 10s.

Price of Chests, with "Guide to Farriery"—No. 1, £6/8/0; No. 2, £2/16/6; No. 4, £2/17/6 (for horses only). Carriage paid.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, LONDON, W.

And sold by all Wholesale Houses in London; Rocks, Tompsett & Co., Melbourne; Felton, Grimwade & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin & Auckland; Langford & McOutehoun, Druggists, Auckland; Fairthorne & Co., Launceston; Berkeley, Taylor & Co., Brisbane; Co., Christchurch; Jenoure & Co., Jamaica; Neild & Co., Buenos Ayres; Willett & Co., Port Elizabeth; &c.

LIBERAL DISCOUNT TO EXPORTERS, AND ALL PARTICULARS ON APPLICATION

FOUND DEAD

BY SANFORD'S RAT POISON.

"I have found 145 rats killed in my farm buildings by it."—C. Wilson Offord.
"It is the most certain remedy I have ever tried. Little pellets about the size of a pea are put in the rat holes or in their runs. I destroyed over 200 rats from one dressing with it."—C. Cook, Grange Farm, Ellesmere, Salop. It is, without doubt, the best ever introduced. Price 6d., 1s., 2s., and 3s., of Chemists.

SANFORD'S MICE POISON for Houses, Buildings, Corn Stacks, &c. Cannot be excelled. Has given entire satisfaction for the past 23 years. In packets 3d., 6d., 1s., and 2s. each, with directions for use, of SANFORD & SON, Sandy, Beds. Liberal terms to Chemists. Wholesale of Barclay & Son, Sanger & Son, Newbery & Sons, Edwards, and others, London (England).

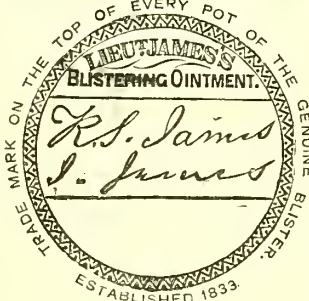
ESTABLISHED 1833.

HORSES.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raines & Co., Edinburgh, are now and have been Agents 55 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burdidges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; Southall Brothers and Barclay, Birmingham; R. Hovenden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia St., Glasgow; John Thompson, 53 Hanover Street, Liverpool; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delacre, Pharmacie Anglaise, Bruxelles.

And by all Chemists, in Pots, 1/6, 2/9, 5/9, and 16/.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

W. H. JAMES, SOLE MANUFACTURER, STANFORD, FARRINGTON, BERKS
Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.

Steiner's Vermin Paste

For destroying Rats, Cockroaches, &c.

3s., 6d., and 1s. Glass Jars; 2s. 6d. Tins. Warranted to keep Export.

Steiner's Vermin Killer

FOR DESTROYING MICE. 1d., 3d., 6d., and 1s. packets.

Steiner's Insect Powder

PRIME DALMATIAN. The most energetic Insecticide. Kills Fleas, and all offensive Insects. Quite Harmless to Domestic Animals. 1d., 3d., 6d., and 1s. Tins. Also in 7-lb. Tins and in Kegs of 12 lb.

STEINER & CO.
ARE SOLE PROPRIETORS AND MANUFACTURERS OF

James's Phosphor Paste

1d., 3d., 6d., and 1s. Glass Jars.

May be obtained through all the Wholesale Houses, or direct from THE WORKS, HENRY STREET, LIMEHOUSE, LONDON.

Established
nearly 50 years.

DAY & SONS

WORLD-FAMED

Awarded
26 Prize Medals.

HORSE, CATTLE & SHEEP MEDICINES.

DAY & SONS'	PRICE
FOR Healing Wounds in all Animals. FOR Sore Shoulders & Cracked Heels in Horses. FOR Sore Teats and Swollen Udders in Cows. FOR Anointing in Bad Lambing and Calving. FOR Every Horsekeeper, Farmer, & Shepherd.	2/6 Per Bottle
Purified DRIFFIELD OILS	

DAY & SONS'	10/-
FOR Fret Colic or Gripes in Horses. FOR Debility and Shivering Fits in Horses. FOR Hoven or Blown Cattle and Sheep. FOR Scour or Flux in Calves and Lambs. FOR Chills, Debility & Colic in all Animals.	PER HALF DOZ.
BLACK DRINK	19/-
	PER DOZ.

DAY & SONS' "WHITE OILS," for all External Injuries where the skin is broken, such as Weak or Swollen Joints, Strains or Sprains, Spavins, Callous or Sore Feet, Bruises of every description in Horses, Cows, Oxen, Sheep, Lambs, and Calves. Price 2/6 per Bottle; 6 Bottles in a Box.

DAY & SONS' "HUSK DRAUGHT," for Husk or Hoose in Cattle, Calves and Sheep. Price 20/- per dozen.

DAY & SONS'	PRICE
FOR Bad Cleansing after Calving. FOR Preventing Milk Fever. FOR Purifying the Milk. FOR Fevers, Yellow, Indigestion. FOR Red Water, Costiveness and Dulness.	12/- Per Doz.
RED DRINK	

DAY & SONS' ALTERNATIVE POWDER FOR HORSES.—Un-equalled for Coughs, Colds, Sore Throat, Thick Wind, Loss of Appetite, Sluggishness, Thick Water, &c. Price 3/6 per dozen, in Canisters containing 1, 2, 4, and 6 dozens.

DAY & SONS' "AROMATIC CHALK MIXTURE," an excellent Stomachic and aid to the "Black Drink," in cases of Scour in Cattle, Calves, Sheep, and Lambs. Price 2/6 per Canister.

THESE AND OTHER WORLD-FAMED MEDICINES ARE CONTAINED IN THE "ORIGINAL" UNIVERSAL MEDICINE CHESTS

No. 13, Price £2 4s. and No. 11, Price £5,
FOR ALL DISORDERS OF HORSES, CATTLE, CALVES, SHEEP, AND LAMBS.

THE "HORSEKEEPER'S" MEDICINE CHESTS, price £2 14s. and £5, are specially arranged for Horses, and contain all that is required to keep them free from disease, and in fine, healthy condition.

All goods carriage paid. Beware of strange imitations, and note Name and ONLY ADDRESS—

DAY & SONS, CREWE, CHESHIRE.

WHOLESALE AGENTS—

Messrs. Barclay & Sons; Burgoyne, Burbidges & Co.; Evans, Lescher & Webb; Sanger & Sons, &c., London. Messrs. Evans, Sons & Co., Liverpool, &c.

FOR ALL CANINE AILMENTS.

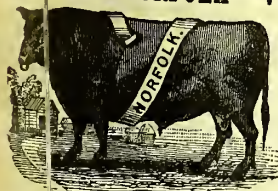
SPRATTS PATENT, LIMITED,

DOG MEDICINES.

pamphlets on Canine Diseases for gratuitous distribution. Show Cards and Handbills Supplied.

Address: **SPRATTS PATENT, LIMITED, LONDON, S.E.**
OR YOUR WHOLESALE HOUSE.

THE "NORFOLK" VETERINARY REMEDIES are the result of 40 Years' large practice,



And have an enormous sale in virtue of their superior quality and moderate price. Used on the Royal Farms, and by thousands of Cowkeepers, Flockmasters, and Farmers in the kingdom. The leading Remedies are The "NORFOLK" CONDITION DRENCHES for Cows, Bullocks, or Sheep; a sure preventive of Fever, Blood Diseases, and ordinary ailments; 9s. per dozen, 3 dozen 22s. 6d. The "NORFOLK" CORDIALINE, or PAIN KILLER, the most powerful Restorative known for Horses, Cattle, or Sheep in Colic, Calving, Lambing, &c.; 12s. per dozen, or 3 dozen 31s. 6d. The "NORFOLK" RED WOUND OILS, a rapid and sound cure for all Kicks, Cuts, Accidents, &c.; 3s. 6d. per pint, or 36s. per dozen. The "NORFOLK BROWN SPRAIN OILS, for Lameness, Old Swellings, Rheumatism, &c.; 3s. 6d. per pint, or 36s. per dozen. Usual discounts to the Trade, and special terms for Shipping Orders. Manufactured for the Proprietor only by

F. SUTTON & CO., Chemists, NORWICH, ENGLAND.

SPONGE IMPORTERS.

M. PETERSON & CO.

(ESTABLISHED 1870),

75 ST. ANNE STREET, LIVERPOOL.

FOR HOME, FOREIGN, & COLONIAL MARKETS.



GIVEN AWAY!

YOUR MONOGRAM or NAME.

Anyone sending 3d. for postage, &c., and mentioning this advertisement, will receive gratis his Two-Letter Monogram in above style, or his name in full, for Marking Linen or Paper. Great variety of Stamps. Specimens free.

VAN HOUTEN & CO., Stereotypers in India-rubber,
21 COLEMAN STREET, LONDON, E.C.

IN PHARMACY QUALITY IS OF FIRST IMPORTANCE

THE contest between true pharmacy—between the skilled chemist and druggist and the purely commercial store—that is now being waged throughout Great Britain, reflects the contest which manufacturing Pharmacists of skill and integrity are waging against the quacks and charlatans. The protection of the honest retailer, and the security of the honest manufacturer, are in the superior quality of their goods. The success of the Physician and Surgeon depends chiefly upon the integrity of the medicines and appliances they employ, and they, as well as the public whom they serve have already learned to be distrustful of the quality of "Cheap John" Pharmaceutical preparations. Our efforts are wholly to further the interests of legitimate and progressive pharmacy, and for that reason we adhere strictly to the policy of fixing but one quality, and that the best.

The status of the whole plaster business is well known by the analysis of Belladonna Plasters, the leading article on the list of spread goods, made in March, 1886, by Dr. Albert P. Prescott, Professor of Chemistry at the University of Michigan, and President of the American Chemical Society, from goods purchased by him in open market. The assays were made by the same process, in parallel operations, for the quantity of total Belladonna alkaloids, estimated as atropine, and the results showed that our Belladonna Plasters contained more than double the quantity of atropine contained by any other make, and also corresponded with the standard laid down by the British Pharmacopœia and United States Pharmacopœia.

The results of Dr. Prescott's analysis confirm those previously made by Professor Doremus and Dr. Battershall, and lately by Mr. William Rupp, F.C.S., at their laboratories in New York City, and by S. W. Williams, at the laboratory of the College of Pharmacy. Our Plasters may, therefore, be depended upon to afford the full and prompt therapeutic effect contemplated by the official formula and expected by Physicians. That the same effect cannot be expected from the inert preparations put upon the market by other makers is fully proven by the analysis alluded to, and what is shown to be true of Belladonna is equally true of all other goods on the list.

Recently the trade has been favoured with what purports to be a new series of analyses of Belladonna Plaster, which carry upon its face the evidence of "intent to deceive" on the part of those who instigated it. The motives that prompted the work can easily be discovered by the common sense of every man possessing instincts of ordinary honesty. It was evidently done and made public in the expectation of establishing an assumed standard, and thus covering the fraudulent character of the goods which the instigators of the scheme are really offering to the trade at large. This is an old trick practiced by knaves in almost every other branch of trade, but which has never been tolerated in Pharmacy.

We do not deny but what reputable chemists may have been supplied direct with "stuffed" Belladonna Plaster, or directed to obtain their supplies from some source which had previously been stocked with such goods, nor would it be impossible to make a debased counterfeit of our goods placed in our own container, and set it in the way of unwary chemists. We make no exhibition goods. The goods which we submit to jurors at exhibitions are taken from our regular stock, and the goods which chemists analyse for us are always bought by them in the open market without even a suggestion from us as to where they should purchase them. We have repeatedly demonstrated the

SUPERIORITY OF OUR ABSORBENT COTTON LINT AND GAUZE,

and utter lack of absorbency which characterises several other makes. This is a matter easily tested by dropping a bit of the cotton or lint into water, and noting the rapidity with which it sinks to the bottom. Extreme absorbency is important when absorbent materials are desired at all. Some of our competitors are crafty enough to purchase our own lint and cotton, and re-wrap them under their own labels, for the purpose of making tests, but uniform excellence will be found only in goods bearing our brand.

THE PERFECTION OF OUR GOODS

mean an outlay of time and money which forbids our attempting to compete for the "Cheap John" trade, but no other manufacturer can place upon the market goods equal in quality to our own, at as reasonable prices as prevail throughout our line.

WORTHY OF CONSIDERATION

is our reputation as originators and organisers of this special branch of pharmaceutical chemistry, which has been adopted by every nation, and which has been imitated and pirated by every so-called competitor and neophyte, down to the last accession to their ranks. We have been and shall continue to be aggressive. We are jealous of the work created by us, and with which we are identified throughout the world, and therefore will compel manufacturers of goods in our line to respect and maintain the integrity of official formulæ, or expose their deficiencies. Competition is wholesome only when based on an honourable respect for established standards, especially in Pharmacy. The opportunity for making inferior medicated goods is too great, and we shall consistently and persistently expose those who manufacture goods that belie the label.

SEABURY & JOHNSON,

Proprietors of Seabury Pharmaceutical Laboratories.

EO. J. SEABURY, President.

M. PETERS, Treasurer.

JOBT. J. SEABURY, Secretary.

NEW YORK, LONDON, HAMBURG, AND MONTREAL.

REGISTERED

TRADE



MARK.

EDELWEISS.

THE NEW REGISTERED PERFUME

This most exquisite, original, and permanent Perfume has been pronounced by Connoisseurs to be the finest ever produced. It is distilled with the greatest care, and will not discolour the most delicate fabric. The fashionable world has pronounced it unique.

2/6, 4/6, 7/6,
& 10/6
per Bottle.

The
ROYAL
Perfumery Co.

OFFICE AND SAMPLE ROOM—

165 QUEEN VICTORIA STREET;

WAREHOUSE AND MANUFACTORY—

2 & 4 Brickhill Lane, Upper Thames St.

LONDON, E.C.

Wholesale and Export Perfumes and
Soap Manufacturers,

*Hold the Sole Right of its Manufacture, and
have Registered it under "The Trade Marks
Act," No. 28,217, May 1st, 1882.*

THE ROYAL PERFUMERY CO.

ALSO MAKE

MATHIOLA, a Perfume of exquisite fragrance.

GLYCERINE AND HONEY BALM, a superior cosmetic
for the Skin. In jars at 1/6.

THE "SERVICE" POMADE will positively restore grey or
Faded Hair to its Original Colour. In jars, 3/6 and 6/ each.

Obtainable of all Chemists and Perfumers in any part of the World.



LYNCH'S IMPROVED

PRIZE MEDAL,

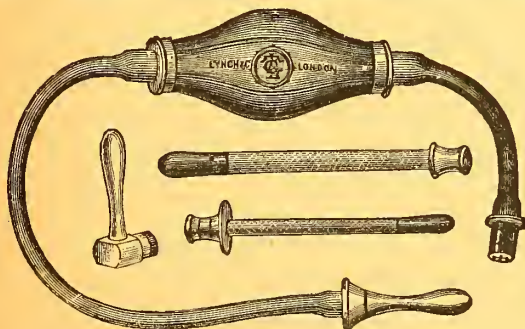


SYDNEY, 1879.

FAMILY ENEMA

(Patent 13,816, dated 12th October, 1887).

In
Mahogany Box
Lined
with Velvet,
per dozen,
49/-



In
Slide Cedar Box,
per dozen,
43/-

Less usual Discount.

LYNCH & CO. have long recognised the imperfect nature of the Valves hitherto employed in the construction of Enemas, and their liability to destruction from contact with greasy matter, from clogging, and even in some cases actually rusting in the Valvular Chamber.

In the employment of Glass they have secured a material not only free from the foregoing defects, but combining all the essentials of incorrodibility, cleanliness, and perfect continuous action.

The Valves are so situated, being placed at the extremity of both inlet and delivery tube, as to admit of their ready removal and replacement, if desirable; and being within the Indiarubber are perfectly protected from any possibility of breakage.

The simplicity of the Apparatus, the entire absence of complication, and the extremely moderate price warrant the Inventors in hoping for its universal adoption.

MAY BE HAD WHOLESALE OF THE PATENTEES—

LYNCH & CO., 192 ALDERSGATE STREET, LONDON, E.C.

AUSTRALIAN BRANCH—15 Vaughan's Chambers, 48 Queen Street, MELBOURNE.

SHOWROOM.

We have now completed the restoration of our premises, and shall be pleased to see any of our country friends visiting London. Our Showroom contains samples of all staple goods and the most recent novelties, and we are fain to hope will prove of interest to intending purchasers.

15th November, 1887.

LYNCH & CO.

SOLE IMPORTERS

OF

**APOLLINARIS WATER,
FRIEDRICHSHALL WATER,
HUNYADI JÁNOS WATER,**

THE APOLLINARIS CO., LIM.,

19 REGENT STREET, LONDON, S.W.

SPECIAL PRICES ON APPLICATION.

CADBURY'S COCOA ESSENCE

The medical profession for Cadbury's
Cocoa Essence in thousands of cases, as
the most wholesome beverage. Be sure

you get it when asked for, as imitations are often pushed for the sake of extra profit.

"We have carefully examined the samples brought under our notice, and find that they are genuine, and that the Essence of Cocoa is what it is
declared to be by Messrs. Cadbury Brothers."—*Lancet*.

"Cocoa treated thus will, we expect, prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal*.

GUARANTEED PURE AND SOLUBLE.

THE "ALPHA" SYRINGE**A CONTINUOUS ENEMA.**

Patented in England, France, Germany, U.S. America, and Canada.

IT POSSESSES THE FOLLOWING NOVEL AND MOST VALUABLE QUALITIES:—

- 1.—It throws a continuous stream of fluid with less than half the exertion which is required by ordinary elastic bulb syringes, many of which tax the strength, even of a man's wrist, after the first few impressions.
- 2.—The "Alpha" being made of pure Indiarubber far outlasts all ordinary Syringes; it is, therefore, considerably cheaper in the end than they.

PRICE 60s. PER DOZEN.

TO BE OBTAINED OF ANY DRUGGISTS' SUNDRYMAN, OR FROM THE SOLE AGENT

R. Sumner & Co.

WHOLESALE AND
EXPORT DRUGGISTS, LIVERPOOL.

THE CHEMIST & DRUGGIST

SUPPLEMENT.

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, MARCH 17, 1888.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 12 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the issue of the Saturday following.

Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE and credited MARTIN & CO.

OFFICES: 42 CANNON ST., LONDON, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding profitable opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON, S.E.—Good-class Retail and Dispensing Business; returns *£800* yearly; capable of being much increased; good house and garden; fullest investigation courted; about *£700* required.

2.—LONDON, N.—Good-class Dispensing, Prescribing, and Ready-money business; returns nearly *£650* yearly; well-fitted shop and good stock; about *£550* required; full investigation allowed, and a *bond-fide* purchase can have special facilities for examining the business.

3.—LONDON.—Good district.—First-class Business, Retail and Dispensing; very old-established and well known; returns nearly *£1,000*; shop handsomely fitted, and good stock; large and convenient house; about *£110* required.

4.—LONDON.—Ready-money locality; Retail and Prescribing business position excellent; large double-fronted shop; returns over *£550* yearly, with nearly *£300* net profits; good house; low rental; garden and greenhouse attached; price *£525*.

5.—LONDON, N.—Branch Business for immediate disposal, situate in good locality in main road; returns under manager over *£500*; can easily be increased by principal; well-fitted shop and good stock; large and convenient house; about *£250* required.

6.—MIDDLESEX.—Good business locality; good-class Retail and Prescribing Business; returns average over *£450*, capable of being largely increased; large, handsome shop and good stock; large house and garden; about *£25* will be accepted.

7.—SPECIAL.—Gentlemen requiring business with profits from *£400* to *£1,000*, either town or country, are invited to apply. Several good investments are open; applications, with references, are desired.

8.—SOUTH OF ENGLAND.—Capital opportunity for Partnership; investment offers in Wholesale and Retail; returns at present over *£4,000* yearly, can be largely increased; premises large and convenient; full premium and valuation only required; references must be enclosed. Full particulars in confidence on application.

9.—GLOUCESTERSHIRE.—Good-class Retail and Dispensing Business, with good appointment attached; returns about *£800*, yearly increasing; profits above the average; good house; low rental; price *£525*.

10.—SUSSEX.—Good town; Retail, Dispensing, and good General Business; returns from profitable trade about *£1,350* yearly; large handsome double-fronted shop and good stock; about *£1,100* required; valuation terms can be arranged.

11.—HOME COUNTY.—Good business town; very old-established Retail and Dispensing Business, with small Wholesale and Mineral Water trade attached; returns nearly *£1,900*, profits nearly *£500*; good opportunity for two gentlemen as partners; good premises and roomy residence; rent very moderate; held on lease; garden, &c.; about *£1,450* required.

12.—WITHIN EASY DISTANCE OF LONDON.—Good town; good-class Retail and Dispensing Business; returns nearly *£1,000*, profits above the average; large handsome shop and good stock; house convenient and large; about *£800* required; *£400* paid down, remainder by instalments; the business will bear the strictest investigation, and a good introduction will be given.

13.—HOME COUNTY.—Fashionable locality; First-class Business for disposal; returns nearly *£1,200*; net profits over *£400*; large and convenient premises; *bond-fide* purchasers will be furnished with full particulars on receipt of London references.

14.—KENT.—EASY DISTANCE FROM TOWN.—Dispensing and Retail Business of good class; returns average from profitable trade about *£1,000* yearly; well-fitted shop and good house; full investigation permitted; about *£750* required.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION. Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the especial attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

SPECIAL NOTICE.

TO BE SOLD BY TENDER,

By instructions of Proprietor, GOODWILL, STOCK AND FIXTURES, LEASE, &c., of 223 High Street, Lincoln, carried on for many years by Messrs. TOMLINSON & HAYWARD, and for the past eight years by Mr. W. H. BROGLEY. Returns at present about *£2,700* yearly, including Surgeons' Wholesale; capable of great extension. The form of Tender, terms of Sale, and full particulars may be procured from the Agents,

Messrs. ORRIDGE & CO., 32 Ludgate Hill, London, E.C.

PARSON C. BAKER,

TRANSFER AGENT,

8 Stockbridge Terrace, S.W.
(CLOSE TO VICTORIA STATION),

Has inquiries for genuine businesses from £500 to £1,000.

FOR Disposal.—**YORKSHIRE**.—Returns £1,450, increasing; with wines and spirits, and profitable post-office; valuation only, about £1,000. **ESSEX**.—Compact country business, with Gilbey's agency; returns £600, increasing; price £400; good house and garden, &c. **CUMBERLAND**.—Seaside resort; returns £600, rapidly increasing; price £400. **HANLEY, STAFFS**.—Good Retail; returns £400; valuation or offer. **NEAR PORTSMOUTH**.—Returns £400; valuation or £200. **DURHAM**.—Returns £1,000; valuation of stock and fixtures; good proprietaries; worth attention. **NOTTINGHAM**.—Returns £850; valuation. **LONDON**.—Two or three very profitable, suitable for branches, from £100 to £250.

THOS. TOMLINSON & SON,

CHEMISTS AND DRUGGISTS' VALUERS,

9 New Cannon St., MANCHESTER,

Have the most experienced Practice in the Profession.

INVENTORIES AND OPEN VALUATIONS FOR
STOCKTAKING OR OTHERWISE.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WOODHALL SPA, Lincolnshire.—To Let, at rents from £20 and upwards, the only Chemist's Shop in the New Mall. Apply, Mr. R. A. Camc, 27 Mecklenburgh Square, London, W.C.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

GOOD Retail and Dispensing Business in the South of England required; returns about £1,000; must bear investigation. Address, with full particulars, to Mr. W. L. Williams, Solicitor, Wakefield.

A RELIABLE Retail and Dispensing Business; returns from £800 to £1,200; London or South of England preferred. State size of house and full particulars to "Minor," 1 Albemarle Terrace, Taunton, Somerset.

A GENUINE Business, Country, Retail, and Dispensing, returning from £1,000 upwards, pleasantly situated on the coast of Devon or Cornwall or equally pretty spot; principals only treated with in confidence, and none need apply who are unwilling to allow a thorough investigation; cash ready. "Fides," No. 192, Conservative Club, Plymouth.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO Chemists and Druggists.—For immediate sale, the Stock and Fixtures of a small genuine Retail; only £65; easy terms; situate in the best thoroughfare in Grimsby. Apply, R. M. Jessup, Chemist, Swinefleet, Goole.

FOR sale, Wholesale Drug Business, successfully carried on by Davidson & Sim, Aberdeen, for 20 years; premises good; may be either purchased or had on lease. Full particulars on applying to the Firm.

TO Chemists and Druggists.—Shop and residence in a respectable and populous neighbourhood; no other business within the radius of a mile; rent £50. Apply to Hart, 192 High Street, Stoke Newington.

£40.—Balance by instalments to suit purchaser; genuine Retail and Prescribing in thick populated working class S.E. neighbourhood; clear profit £3 per week under indifferent management. Address, "Star," c/o THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BY Ladyday.—A thoroughly good cash Retail Prescribing, and Dispensing Business, a few miles from London, N.; suitable for good branch or fresh business; bargain to an immediate purchaser. Apply to "Corpus," Messrs. Deacon's, 154 Leadenhall Street, London.

CALNE, Wilts.—In consequence of the recent death of the proprietor, a small but profitable Business can be had on very advantageous terms—£250. For further particulars apply to Evans, Lescher & Webb, 60 Bartholomew Close, E.C.

HERBALIST Business, London, N.W.; on exceptionally easy terms; perfectly satisfactory reason for leaving; genuine concern with trade increasing; fits up as chemist's. By letter, "Botanic," 28 Princess Road, Burn, N.W.

AMERICA.—State of Kansas.—Practice yielding £350 cash yearly and half interest in drug store yielding £1,000 per annum, and also half interest in store building. Price, with good introduction, £500. Apply to Wm. Hornbrook, 17 Bloomsbury Street, Oxford Street, W.C.

FOR sale, through death of proprietor, a Business in the West of England; doing during the last year of late proprietor £850; good position; long lease; price £500. Apply G., Barron, Harveys & Co., Giltspur Street, E.C.

IMMEDIATE possession; a bargain; return £400 under assistant, easily increased under proprietor in good position in main street of one of largest towns of Devonshire; good opportunity for Dentistry to be added; dense population; well stocked; price £275, or valuation preferred. Apply, "Devon," care of Evans, Gadd & Co., Exeter.

NORTH HANTS.—Small Drug Business; principally ready money; in good market town in agricultural district; returns about £200; eight-roomed house, cellar and small garden; rent £16, including rates and taxes (water rate excepted); decease of principal sole reason for selling; good opening for person with small capital; commission low. Apply, S. Barnes, 13 Union Street, Andover.

COUNTY TOWN.—Small, compact, good class Dispensing and Prescribing Business; returning present £200 yearly, increasing; large profits; vendor making an engagement, will accept £250 (less than value of stock and fixtures) from early purchaser, £150 cash, balance by instalments; rent free to June. 184/17, Office THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IPSWICH.—An old-established Light Retail Dispensing, and Prescribing Business in busy thoroughfare, returning about £600 per annum and increasing under management; shop newly fitted, plate-glass front; comfortable house, side entrance; small garden; capital lease; cash traded; Bond-fide purchasers can apply for full particulars, either orally or by letter, to the Proprietor, 21 Tacket Street, Ipswich.

HOME County, 10 miles from London; same family 50 years; owner retiring; good-class Retail, Prescribing, and Dispensing trade; full prices; returns £1,400; convenient 10-roomed house, 2 cellars; garden; long; price £1,200; £300 could remain if desired. For further information address, G. J. A., THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

DING and Patent Medicine Stores for disposal, in the most flourishing town in the North Riding of Yorkshire; first-class situation; price for stock, fixtures, and trade utensils not exceeding £120; no ingoing; good house and large yard; splendid opportunity for a young man commencing. Apply, H. K., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AVELL-KNOWN and successful Proprietary business in London for disposal; proprietor retiring; goods sold by most chemists in the British Isles, Australia, New Zealand, &c.; the business can be easily managed, and with energy could be indefinitely extended; very suitable for two active young men; £4,000 at least required. Apply to 19, THE CHEMIST AND DRUGGIST Office, 42 Cannon Street, London, E.C.

HARROW-ON-THE-HILL.—For immediate disposal (owing to exceptional circumstances), a double-fronted Dispensing, Prescribing, and Retailing of Pure Drugs Business; opened by present proprietor five years ago; healthy situation, with lovely prospect; incoming (which must be cash) about £300. Particulars and cards to view from Bridge & Co., 32 Ludgate Hill, E.C. N.B.—The first purchaser at all suitable will be accepted.

AMERICA.—Situated in the charming Valley of Wyoming; Practice and Drug Store attached; established 20 years; cash returns from £1,250 to £1,450 a year; the estate consists of a fine building, which comprises a beautiful residence of 16 rooms, with drug store, office, and stable; price for practice and estate, stock and fixtures, £4,100; part cash, and balance on mortgage if desired; good personal introduction. Apply to William Hornibrook, Medical and Chemists' Transfer Agency, 17 Bloomsbury Street, Oxford Street, W.C.

SITUATIONS OPEN.

33d. for fifty words; 6d. for every 10 words beyond.

WANTED, a Junior Assistant (outdoors); brisk ready-money trade. Apply, stating particulars, to D. Roberts, Chemist, 131 North End, Croydon.

WANTED, an Assistant, aged 23 to 25, to manage suburban Dispensing and Prescribing business; salary and commission. Apply, stating full particulars to J. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

THEMISTS' Assistants.—Wanted at once, a Qualified Dispenser (outdoors); no Sunday duty. Apply by letter, stating age, experience, and salary required, to J. S. G., 136 Queen Victoria Street, E.C.

QUALIFIED Assistant wanted at once for China, having a knowledge of French and of the manufacture of Aated Waters; first-class experience and highest reference indispensable; 25 to 30. Q. A. 887, Messrs. Deacons' Advertising Offices, 154 Leadenhall Street, E.C.

BENCH Manager; to reside on premises; house and gas free; married preferred; must be qualified and registered Dentist, Prescriber, and well up to general routine. State salary, &c., to Butler & Son, Chemists, Sanvey Gate, Leicester.

WILLIAM HESELTINE & SON, Wilson Street, Finsbury, E.C., are open to engage a first-class man to introduce and appoint Chemists as Agents for their Teas; liberal terms to one having necessary qualifications (see full page advertisement appearing in this issue). Apply by letter, as above, in first instance.

WANTED, by Chemist and Dentist, an indoor Assistant who can do mechanical dentistry; must be of good address and well recommended; short hours; state salary required. "Dentist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

WANTED immediately, a suitable Gentleman to take over the charge of a retail Chemist's business; to an energetic man a rare opportunity; proprietor joined the medical profession reason for alteration; a gentleman with a small capital liberally dealt with. Dr. Garth, 119 North Road, Preston.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

MR. SMITH, 4 Lodge Street, Bristol, Reg. Chemist, Manager during absence, illness, or branch previous to disposal.

MANAGER; temporary or otherwise; qualified; long experience. M. J., 344 Mare Street, Hackney.

AS Assistant, Wholesale or Manufacturing. "Druggist," 53 Penton Street, Pentonville.

JUNIOR; 8½ years' experience; satisfactory references. A. Grist, Bidboro', Tunbridge Wells.

BRANCH Manager; held three appointments; aged 35; London preferred. Walker, 5 Campbell St., Hull.

ASSISTANT or Manager; disengaged; qualified. Apply, A. P. S., Medical Hall, Llandudno.

AS Assistant; aged 23; good experience. "Minor," 119 Eastgate, Rochester.

JUNIOR; 4½ years' experience; aged 20; London or suburbs. "Beta," 372 Harrow Road, W.

ASSISTANT, Minor qualification; aged 25. H. Maddock, Kersal Towers, Kersal, Manchester.

ASSISTANT; aged 33; Minor qualification; open to immediate engagement; good dispenser, active worker. L. P., 2 Eagle Place, Piccadilly.

AS Assistant or Manager; good references and experience; aged 28; height 5 ft. 10 in. F. Higgs, Cheap Street, Newbury.

WANTED, by an experienced Druggist, management of a Branch Shop; 20 years' reference from last situation. Address, G. B., 19 Cottage Grove, Clapham, S.W.

AS Dispenser, or Half-time; London or Manchester preferred; Minor and Apothecaries'; aged 23. Myers, Wilton Brough, E. Yorks.

MANAGER, Assistant, or Dispenser; married; last references 6 years; good Prescriber and registered Dentist. Joseph Bartlett, Witney, Oxfordshire.

MANAGER or Dispenser, Chemist or Surgeon; temporary or permanent. Dunkerly, M.P.S., 88 Morton Road, Essex Road, Islington, N.

MANAGER, Assistant, or Dispenser; good varied experience; at liberty first of April. "Mac," 52 Marchmont Street, Russell Square.

ASSISTANT; aged 25; 3½ years' reference; ab-stainer. Reply, stating hours and salary offered, to Ives, Station Road, Colchester.

MANAGER; qualified; experienced in Prescribing; married, or able to arrange for domestic life; best references only. W., 185 Shirland Road, W.

MANAGER, Dispenser, or Laboratory Assistant; qualified. "Major," 30 Trinity Street, Borough, S.E.

TEMPORARY or Manager; thorough experience; town or country; undeniable references; abstainer; registered. "Chemist," 159 Copenhagen Street, London.

ENGAGEMENT wanted as Assistant in April; excellent references; salary £15, indoors. Divers, Norwell House, Boston Spa, Yorkshire.

MANAGER or otherwise; really good references; age 38; London preferred. "Tempus," 10 Lodge Avenue, Mortlake, Surrey.

WHOLESALE.—Advertiser seeks situation at the Wet or Dry Counter; 1 year in present place, 4 years previous; good references. "Drug," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FRANCE.—Advertiser (25), qualified, 16 months in English-French Pharmacy in London, seeks engagement; slight knowledge of language. Address, with particulars, "Chemist," 22 Stonest Street, Holloway, London.

AS Assistant; active, not afraid of work; all-round experience; good references; aged 39; height 5 ft. 8 in.; single; unqualified. "Dulcamara," Chestnuts, Uxbridge, Middlesex.

AN A.P.S. by examination desires an immediate engagement; aged 43; married, one child; good references. Address, W. D., THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SEASIDE preferred; for five months in good Dispensing Business; salary no object; 4 years' first-class experience; height 5 feet 10 inches; aged 21. T. Horry, The Brewery, Boston.

JUNIOR, in good-class business, where two or more are kept; twenty-first year; 4 years' good experience; tall; abstainer; highest references. Wynne, Mr. Haywood, Chemist, Birkenhead.

YOUNG Man, 8 years' experience retail trade, seeks engagement in any responsible position in wholesale house; aged 26; gentlemanly appearance; good address; highest references; security. Humewood, Burn Cross, Sheffield.

MANAGER or Senior Assistant; age 36; tooth extractor, prescriber; qualified; round three situations, 4 years, 2 years, and 6 years; references. Address, Walker, 14 Piggott Street, Manchester.

AN Apothecary (Protestant) can recommend brother, aged 19, as a steady Junior house where one or two assistants are kept April 12. Full particulars, "Stomatitis," 5 Molesworth Place, Dublin.

MISCELLANEOUS

Special charges are made for Advertisements under this heading which can be obtained on application.

COD-LIVER OIL.

A FEW Barrels (25 gallons, tin lined) New non-freezing Norwegian, at lowest prices; obtainable. Sample on application to the Importers, Holt & Co., African Chambers, 19 Old Broad Street, London. Pool, Drug, Chemical, Oil, and General Price List.

PRELIMINARY AND MORE.

ALL Students who are preparing for particulars of a method of study, which will enable them to pass with ease. Enclose stamp, envelope, J. Tully (Hills Prizeman), Chemist, Harrogate, 1872. References to past and present pupils.

STUDENTS' AIDS TO EXAMINATIONS.

PRELIMINARY.—Arithmetic and Metric, 1s. How to Write an Essay, 3d. Car Simple, 1s. Knotty Points in Latin Grammar, 1s. 6d. Simplified, 1s. Illegible Autographic Prescriptions, 1s. Prescriptions given the "Chemist," care of Mr. J. Edwards, Wyke, Leeds.

THE PATENT THERMO SAFEGUARD



A THERMOMETER, 10 inches long, Retail Prices, 9 & 2. WHOLESALE of Price, 10. POCOCK, KEVIN & CO. 72 & 74 Wandsworth Road, London.

OUR WEEKLY SUPPLEMENT.

We have prepared a set of forms for small advertisement (ass wanted, businesses for disposal, Exchange column, &c.). With the attached tables of useful reference matter (Sale of Poisons, Postal Information, Annual Licences, Metric Weights, Measures, Medicine Samples and Public Offices, &c.). We shall be glad to send one of these sets to any subscriber who will send us an addressed postal wrapper (bearing halfpenny stamp). As the object of this production is to encourage the insertion of such advertisements as we have named in THE CHEMIST AND DRUGGIST, we hope this offer will be taken advantage of chiefly by those subscribers who are willing to use this journal whenever opportunities occur.

OFFICES: 42 CANNON STREET, LONDON, E.C.